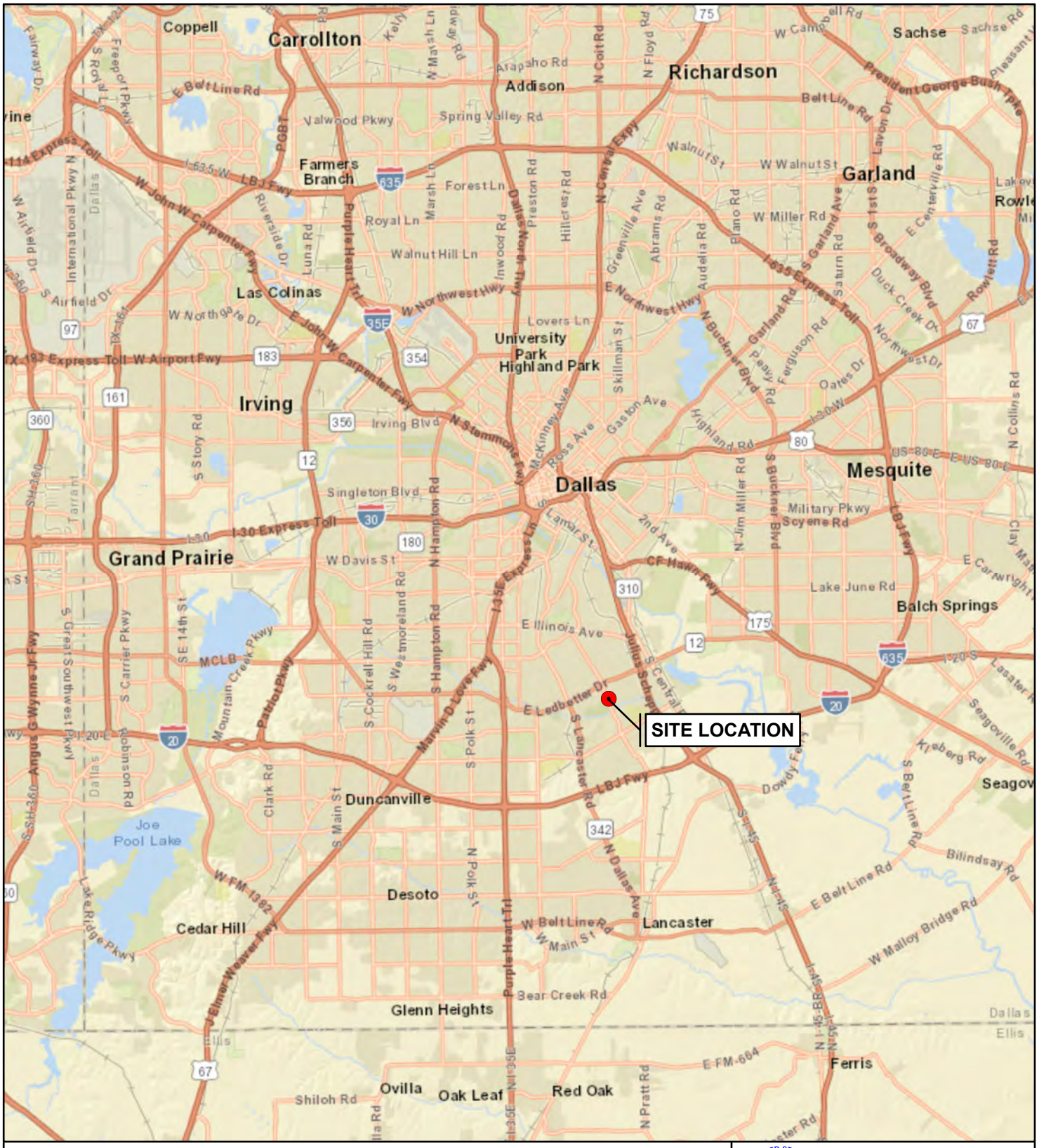
ATTACHMENT 1



LEGEND

- SITE LOCATION

SOURCE: WORLD STREET MAP, ESRI
TDD: 0001/22-479
SEMS: TXN000605240
SSID: A6MS

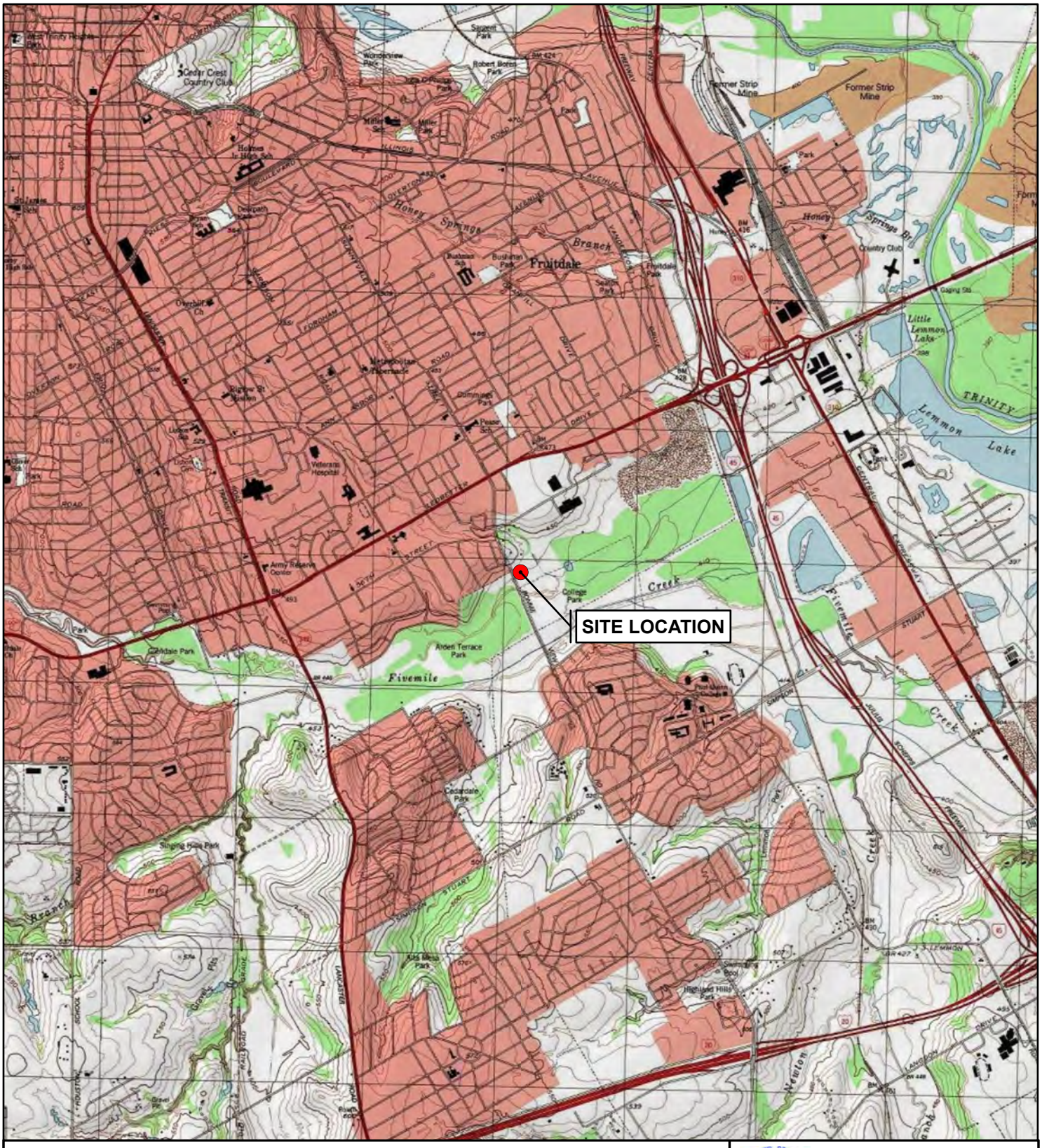
US EPA REGION 6

SITE LOCATION MAP

LANE PLATING WORKS
REMOVAL ACTION
5322 BONNIE VIEW ROAD
DALLAS, DALLAS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
SEPTEMBER 2022	20600.012.001.1479	AS SHOWN

FILE: \\nasatxgis1\ATX_GIS_Data\EPA\Region 6 START IV\Superfund\Lane Plating\GIS\pro\Lane Plating\Lane Plating.aprx 2:23 PM 9/13/2022 covasj



LEGEND

- SITE LOCATION

N

0 4,000 8,000

SCALE IN FEET

SOURCE: NATIONAL GEOGRAPHIC TOPO; ESRI
TDD: 0001/22-479
SEMS: TXN000605240
SSID: A6MS

US EPA REGION 6

SITE AREA MAP

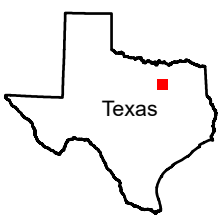
LANE PLATING WORKS
REMOVAL ACTION
5322 BONNIE VIEW ROAD
DALLAS, DALLAS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
SEPTEMBER 2022	20600.012.001.1479	AS SHOWN

FILE: \\nasatxgis1\ATX_GIS_Data\EPA\Region 6 START IV\Superfund\Lane Plating\GIS\pro\Lane Plating\Lane Plating.aprx 2:25 PM 9/13/2022 covasj

LEGEND

- STREAM
- SEASONAL STREAM
- CHAIN LINKED FENCE
- PROCESS AREA FENCE
- REQUIRES FURTHER ASSESSMENT
- EXCAVATION TO 5 FEET



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SCALE IN FEET

SOURCE: ©NEARMAP IMAGERY, MAY 2022
TDD: 0001/22-479
SEMS: TXN000605240
SSID: A6MS

US EPA REGION 6

SITE LAYOUT MAP

LANE PLATING WORKS
REMOVAL ACTION
5322 BONNIE VIEW ROAD
DALLAS, DALLAS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
SEPTEMBER 2022	20600.012.001.1479	AS SHOWN

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ATTACHMENT 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

SEP 6 2016

MEMORANDUM

SUBJECT: Request for a Time Critical Removal Action at the Lane Plating Site, Dallas, Dallas County, Texas

FROM: William Rhotenberry, Federal On-Scene Coordinator, CERCLA Assessment and Removal Team (6SF-EC)

THRU: for Ronald D. Crossland, Branch Chief J. Chris Petersen
Emergency Management Branch (6SF-E)

TO: Carl E. Edlund, Director
Superfund Division (SF)

I. PURPOSE

This memorandum seeks approval for a time-critical removal pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9601 et seq., at the Lane Plating Site, Dallas, Dallas County, Texas (or "Site"). The proposed time-critical removal action calls for the removal and off-site disposal of waste materials stored onsite in tanks, drums, totes and various open topped metal containment devices.

This action meets the criteria for initiating a removal action under the National Contingency Plan ("NCP"), 40 C.F.R. § 300.415. The proposed action is expected to require less than 2 million dollars and 12 months to complete. The Site was referred to EPA by the Texas Commission on Environmental Quality (TCEQ).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS #: TXN000607031
Category of Removal: Time Critical
Site ID #: A6MS
Latitude: 32.6878557 N
Longitude: 96.7692897 W

A. Site Description

1. Removal Site Evaluation

Lane Plating Works, Inc. is an abandoned electroplating facility that contains electroplating wastes from operations that ended in 2015. The original facility building and structures containing wastes are still present on-site. The site consists of the Main Plating Building (MPB) where the majority of operations took place, and an external, unsealed shed structure known as the Hazardous Waste Treatment Building (HWTB), located south of the MPB. A chain-link fence isolates the site from Bonnie View Road.

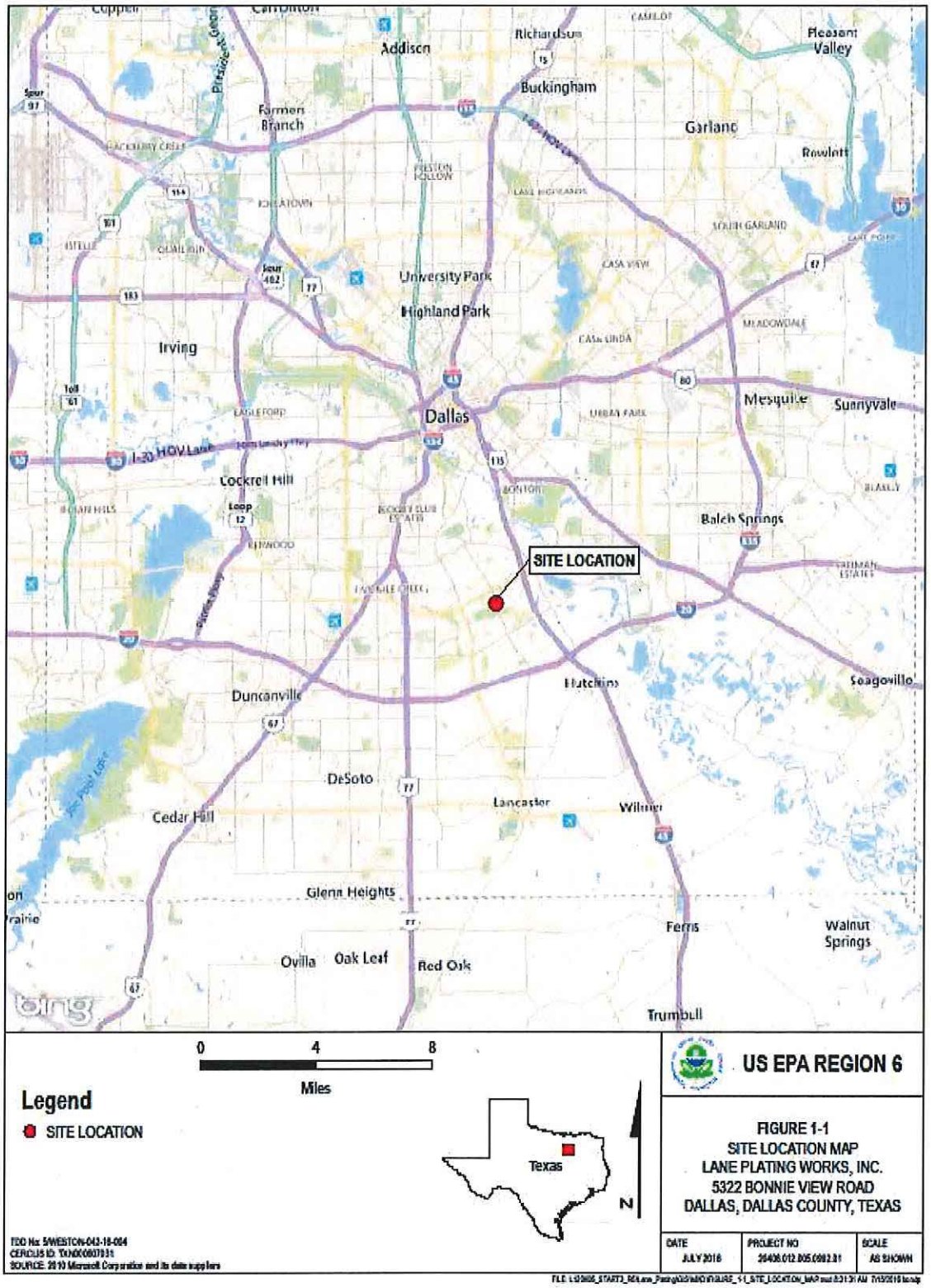
In April of 2016 the EPA Removal Program conducted a Removal Assessment at the Site and collected waste samples from materials inside the MPB as well as soil samples from grids surrounding the MPB and the HWTB. The liquid waste samples had a pH of less than 2 and contained high concentrations (100,000 – 296,000 mg/kg) of chromium. Seventeen (17) of the soil grids sampled around the MPB and HWTB exceeded the EPA R6 Screening Levels (RSL) for Hexavalent Chromium. Eight of the grids sampled exceeded the RSL's for lead.

2. Physical location

The Lane Plating Works, Inc. Site is located at 5322 Bonnie View Road, approximately five miles south of downtown Dallas, Dallas County, Texas (Figure 1-1). Land use is a mix of residential and commercial. The five acre Site is located immediately east of Bonnie View Road and is surrounded on all sides by open or wooded land. Single family residences are located west of the Site along Bonnie View Road and north of the Site on an adjacent property. The Site and the adjoining property east of the Site are currently owned by Stag Management, Inc.

3. Background

The Site was in operation for approximately 90 years. Operations ceased in late 2015 following a bankruptcy filing. The Site conducted primarily hard chromium and cadmium plating. Additional processes included chromate dips, chromic acid anodizing, black oxide coating, nickel plating, passivation, machining and grinding, and operating a lead melting pot to repair anodes used in the plating baths. Waste streams associated with the electroplating processes included corrosive waste, reactive waste, cadmium, chromium, lead, spent chromic acid solution, spent muriatic acid, chromate, metals filings and dust, cyanide waste, caustic waste, caustic soda solids (tank bottoms), and wastewater treatment sludges.


Addison
Richardson
Pleasant Valley
Buckingham
Farmers Branch
Garland
Rowlett
University Park
Highland Park
Irving
Dallas
Mesquite
Sunnyvale
I-20 HOV Lane
Cockrell Hill
Balch Springs
SITE LOCATION
Duncanville
Hutchins
Seagoville
DeSoto
Lancaster
Cedar Hill
Glenn Heights
Ferris
Walnut Springs
Ovilla
Oak Leaf
Red Oak
Trumbull
0
4
8
Miles
Legend
SITE LOCATION
Texas
N
US EPA REGION 6
FIGURE 1-1
SITE LOCATION MAP
LANE PLATING WORKS, INC.
5322 BONNIE VIEW ROAD
DALLAS, DALLAS COUNTY, TEXAS
DATE
JULY 2016
PROJECT NO
SCALE
AS SHOWN

4. Site Characteristics

The MPB contains a large number of tanks, drums, plastic totes, and open topped containment devices holding wastes associated with previous electroplating activities. Many of the containments are either leaking already or will soon if a removal action is not taken (See Figures 2, 3). During a 2014 inspection by OSHA, Lane Plating was cited for 21violations and fines totaling over $110,000. The inspection focused on incompatibility of wastes stored and subjecting employees to exposure of Hexavalent Chromium without proper safeguards. Previous inspections by the TCEQ estimate that there are approximately 20,000 gallons of waste materials inside the MPB and approximately 12 cubic yards of contaminated soils in supersacks being stored in the HWTB.

Figure 2

Figure 3

5. Release or threatened release into the environment of a hazardous substance, pollutant or contaminant

There is evidence of releases of hazardous substances throughout the MPB. There is excessive chromium staining on the floor and small pools of plating waste materials (Figure 3) from active ongoing releases. There is chromium staining on the sides of the MPB outside the building from past spills and releases. The OSHA cited Lane Plating for hexavalent chromium dust throughout the MPB and with not supplying their employees with proper respiratory protection.

6. NPL status

The Site is not currently on the National Priorities List, but in July 2016 underwent a Site Inspection (SI) and the surface water pathway is considered a pathway of concern.

7. Maps, pictures and other graphic representations

Attachment 1 Enforcement Addendum (Enforcement Confidential/ FOIA Exempt)
Figure 1-1 Area Map
Figure 2 Tank inside the MPB
Figure 3 Active leak inside the MPB

B. Other Actions to Date

1. Previous Actions

The TCEQ conducted Industrial Hazardous Waste (IHW) Compliance Evaluation Investigations (CEI) at the site in February 2010 and January 2011. Five alleged violations were found and hazardous wastes were observed on the southeast corner of the property. Analyses of soil samples from the area indicated high concentrations of leachable chromium, cadmium, lead, and mercury concentrations. A Notice of Enforcement (NOE) letter and a Proposed Agreed Order were transmitted to the facility on April 20, 2011 and July 5, 2011, respectively.

The TCEQ conducted a follow-up investigation on October 21, 2014, and noted several additional issues and alleged violations of IHW management, resulting in the initiation of a formal enforcement action. Investigators collected soil samples for analysis of total metals, hexavalent chromium, mercury, and aliphatic and aromatic hydrocarbons. Chromium and lead were found in concentrations above RSL's.

The OSHA conducted inspections at Lane Plating from October through December of 2014. In January of 2015, OSHA cited Lane Plating for 21 violations and fined the facility $110,000.

In December of 2015, the TCEQ's Emergency Response Contractor spent several days at the Site pumping chromic acid wastes from open sumps into plastic totes and securing the building.

2. Current actions

The Site has not been operational since 2015. The TCEQ exhausted State Enforcement Activities and referred the Site to the EPA Region 6 Superfund Program for further evaluation and cleanup.

C. State and Local Authorities' Roles

1. State and local actions to date

The TCEQ has had a history of investigation and enforcement activity at this Site (see Section B above). Also, as stated above, the Site has been referred to the EPA for assessment and possible action under its removal response authorities.

2. Potential for continued State/local response

The TCEQ continues to take an active role in maintaining security and health and safety at the Site. After a recent (July 2016) break-in by vandals, the TCEQ responded with their Emergency Response Contractor and re-secured the Site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare or the Environment

Current Site conditions meet the following factors, which indicate that there is a threat to the public health, welfare, and the environment, and that a removal action is appropriate under Section 300.415(b)(2) of the National Contingency Plan (NCP), 40 C.F.R. § 300.415(b)(2). Any or all of these factors may be present at a site, yet any one factor may determine the appropriateness of a removal action under CERCLA authority.

1. Exposure to Human Populations, Animals or the Food Chain, NCP Section 300.415(b) (2) (i)

There is potential for exposure of human populations and animals to chromium and lead which are hazardous substances as defined at CERCLA Section 101(14), 42 U.S.C. § 9601(14), and further defined at 40 C.F.R. § 302.4. Release of these contaminants has already been documented through previous sampling efforts and the potential for further release is great. People or animals coming into contact with the plating wastes or contaminated soils could become exposed to these contaminants and related compounds.

Although the Site is fenced, it has already been broken into and vandalized showing that the Site is easily trespassed upon. There are multiple residences within .25 miles of the Site.

2. Contamination of Drinking Water Supplies or Sensitive Ecosystems, NCP Section 300.415(b) (2) (ii)

There are two onsite water wells, however according to the TCEQ, groundwater in the area is not a useable resource. Surface water runoff from the Site flows in a southeasterly direction and is uncontrolled. The surface water pathway is a pathway of concern for potential ranking of the Site under the Hazard Ranking System (HRS). There are sensitive receptors and wetlands located downgradient of the Site which could be impacted from site runoff.

3. Hazardous Substances, Pollutants or Contaminants in Drums, Barrels, Tanks or other Bulk Storage Containers That May Pose a Threat of Release. NCP Section 300.415(b) (2) (iii)

According to findings by the TCEQ, there is approximately 20,000 gallons of waste liquids being stored in the MPB. As detailed previously there are both potential and active releases of these wastes ongoing at the Site. There are incompatible waste materials being stored improperly which present a threat as Site conditions and the integrity of the containers continues to deteriorate.

4. Weather Conditions that May Cause Hazardous Substances, Pollutants or Contaminants to Migrate or be Released. NCP Section 300.415 (b) (2) (v)

The Site has no electricity and the hot conditions present in summer months has already caused some of the plastic totes containing chromic acid wastes to overpressure due to the extreme changes in ambient temperatures.

5. Threat of Fire or Explosion. NCP Section 300.415 (b) (2) (vi)

There are incompatible wastes at the Site which have been stored improperly. There are both high and low pH materials as well as cyanides that were not stored separately and isolated as they should have been. As the integrity of the containers continues to degrade there is a possibility of incompatible waste streams mixing and causing an explosion and/or fire.

B. Threats to the Environment

Drainage from the Site flows in a southeasterly direction. There are wetlands downgradient from the Site that could be impacted by surface water runoff and that was the focus of a SI conducted in July of 2016. Sample results from the SI are pending at this time.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants or contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to the public health or welfare or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

The wastes being stored inside the MPB and the HWTB will be profiled, removed from the buildings, bulked if possible and sent offsite for disposal. All disposal will be in accordance with the EPA's Off-site Rule, 40 CFR § 300.440, and CERCLA Section 121(d) (3), 42 U.S.C. § 9621(d) (3), and all transportation will be in accordance with Department of Transportation rules and regulations.

2. Contribution to Remedial Performance

The Site is not proposed for listing on the National Priorities List at this time, but doing so would not change the proposed removal action.

3. Description of Alternative Technologies

Since this action involves the removal and disposal of waste in containers, no alternative technologies were considered for this Site.

4. Applicable or Relevant and Appropriate Requirements (ARARS)

The proposed removal action will be conducted to eliminate the actual or potential exposure to hazardous substance, pollutant or contaminant pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. S 9601 et seq., in a manner consistent with the National Contingency Plan, 40 CFR Part 300, as required at 33 U.S.C. § 1321(c) (2) and 42 U.S.C. § 9605. As per 40 CFR Section 300.415(j), fund-financed removal actions under CERCLA § 104 and § 106 shall, to the extent practicable considering the exigencies of the situation, attain the applicable or relevant and appropriate requirements (ARARS) under Federal environmental law.

5. Project Schedule

The duration of the proposed removal action is expected to be 3 weeks from the first workday onsite.

B. Estimated Costs

ESTIMATED COSTS

COST CATEGORY		CEILING
ERRS Contractor		$ 290,000
START Contractor		$ 52,000
Extramural Subtotal		$ 342,000
Extramural Contingency	20%	$ 68,000
TOTAL REMOVAL ACTION COST		$ 410,000

VI. ENFORCEMENT

The total EPA costs for this removal action based on full-time accounting practices that will be eligible for cost recovery are estimated to be $743,130.

(Direct Costs) + (Other Indirect Costs) + .6155(Direct Costs + Other Indirect Costs) = ($410,000) + ($50,000) + .6155($410,000 + $50,000) = $743,130

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this action is not taken at the Site, conditions at the Site can be expected to continue to deteriorate, and the threats associated with the presence of hazardous substances will persist. Delayed action will increase both environmental and health risks posed by the release or threat of release of the wastes inside the MPB.

VIII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues associated with this Site.

IX. RECOMMENDATION

This Action Memorandum documents the approval of the time-critical removal action to be conducted at the Lane Plating Site, in Dallas, Dallas County, Texas, developed in

accordance with CERCLA, 42 U.S.C.§ 9601 et seq., and consistent with the NCP, 40 C.F.R. Part 300.

Conditions at the Site meet the criteria as defined by Section 300.415(b) (2) of the NCP, 40 C.F.R. § 300.415(b) (2), for a removal action. The total project ceiling for the Site as approved by the Superfund Division Director is $410,000.

APPROVED: Pam Phillips, Acting _____ DATE: 9/6/16
Carl E. Edlund, Director
Superfund Division

Attachments

ATTACHMENT 3

EA Engineering, Science, and Technology, Inc., PBC

405 S. Highway 121 (Bypass)
Building C Suite 100
Lewisville, TX 75067
Telephone: 972-315-3922
Fax: 972-315-5181
www.eaest.com

20 November 2020

Mr. Kenneth Shewmake
Task Order Monitor
U.S. Environmental Protection Agency (EPA)
1201 Elm Street, Suite 500
Dallas, Texas, 75270-2102

RE: Remedial Investigation Report, Revision 03
Lane Plating Works, Inc. Superfund Site
Remedial Investigation
EPA Region 6
Remedial Action Contract 2
Task Order: 68HE0618F0309
Contract: EP-W-06-004

Dear Mr. Shewmake:

Submittal of the Remedial Investigation (RI) Report, Revision 03 for the above-referenced Task Order is in response to a question regarding whether or not the Human Health Risk Assessment (HHRA), Revision 02 used the correct values for perfluorohexanesulfonic acid (PFxS) and perfluorooctanesulfonic acid (PFOS) groundwater risk calculations. Upon review of the data, it was determined that the incorrect values were applied to PFxS and PFOS, and these have been revised in the HHRA, Revision 03 as well as in this document.

EA Engineering, Science, and Technology, Inc., PBC (EA) is preparing one hard copy and two electronic copies on compact disc (CD) of this deliverable. These will be submitted to EPA when directed to do so. As requested, one electronic copy (on CD) is also being distributed to Mr. Scott Settemeyer, Texas Commission on Environmental Quality (TCEQ) Project Manager. Due to size limitations sending the deliverable by email, an electronic copy was also uploaded to the Task Order's Share Point site on 20 November 2020.

Please do not hesitate to contact me at (972) 315-3922 if you have any questions.

Sincerely,

Mark Paddack
Project Manager

Enclosure

cc: Scott Settemeyer, TCEQ Superfund Section Project Manager (one electronic copy on CD)
Tim Startz, EA Program Manager (letter only)
File

100022507

TRANSMITTAL OF DOCUMENTS FOR ACCEPTANCE BY EPA	DATE: **20 November 2020**	TRANSMITTAL NO.: **0026**

TO:	FROM:
Mr. Kenneth Shewmake **U.S. Environmental Protection Agency Region 6**	**Mark Paddack** **EA Engineering, Science, and Technology, Inc., PBC**

SUBTASK NO.	DELIVERABLE	NO. OF COPIES
9	Remedial Investigation Report, Revision 03 Lane Plating Works, Inc. Superfund Site Remedial Investigation Dallas, Dallas County Texas	EPA: 1 Hard Copy; 2 Electronic Copies on Compact Disc (CD); 1 Electronic Copy via Share Point TCEQ: 1 Electronic Copy on CD; 1 Electronic Copy via Share Point

ACCEPTANCE ACTION

DOCUMENTS FOUND ACCEPTABLE (LIST BY SUBTASK NO.)	NAME/TITLE/SIGNATURE OF REVIEWER DATE

Remedial Investigation Report
Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas
EPA Identification No. TXN000605240

Remedial Action Contract 2 Full Service
Contract No.: EP-W-06-004
Task Order No.: 68HE0618F0309

Prepared for

U.S. Environmental Protection Agency
Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102

Prepared by

EA Engineering, Science, and Technology, Inc., PBC
405 S. Highway 121
Building C, Suite 100
Lewisville, Texas 75067
(972) 315-3922

November 2020
Revision: 03
EA Project No. 14342.168

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
%	Percent
µg/dL	Microgram per deciliter
µg/L	Microgram per liter
95UCLM	95 percent upper confidence limit of the mean
AVS/SEM	Acid volatile sulfide/simultaneously extracted metals
bgs	Below ground surface
BRAPF	Baseline Risk Assessment Problem Formulation
btoc	Below top of casing
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLP	Contract Laboratory Program
COPC	Chemical of potential concern
CS	Commercial Service District
CSM	Conceptual site model
DESR	Data Evaluation Summary Report
DPT	Direct-push technology
DQO	Data quality objective
EA	EA Engineering, Science, and Technology, Inc., PBC
EPA	U.S. Environmental Protection Agency
ERA	Ecological Risk Assessment
FS	Feasibility Study
FSP	Field Sampling Plan
ft	Foot (feet)
HHRA	Human Health Risk Assessment
HRS	Hazard Ranking System
HSA	Hollow-stem auger
HWTB	Hazardous Waste Treatment Building
IDW	Investigation-derived waste
in.	Inch(es)
in/hr	Inch(es) per hour
IEUBK	Integrated Exposure Uptake Biokinetic Model
MCL	Maximum Contaminant Level
mg/kg	Milligram per kilogram
NOE	Notice of Enforcement

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

ORP	Oxidation-reduction potential
OSWER	Office of Solid Waste and Emergency Response
PA	Preliminary Assessment
PCBs	Polychlorinated biphenyls
PCL	Protective Concentration Level
PFAS	Per- and polyfluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PRG	Preliminary Remediation Goal
PWS	Public water supply
QA	Quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality control
RA	Removal Assessment
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
RSL	Regional Screening Level
SAP	Sampling and Analysis Plan
SCDM	Superfund Chemical Data Matrix
SI	Site Inspection
site	Lane Plating Works, Inc. Superfund Site
SL	Screening Level
SMP	Site Management Plan
SVOC	Semivolatile organic compound
TAL	Target analyte list
TCEQ	Texas Commission on Environmental Quality
TDS	Total dissolved solids
TOC	Total organic carbon
TPH	Total petroleum hydrocarbons
TSS	Total suspended solids
TXDWW	Texas Drinking Water Watch
USCS	Unified Soil Classification System
USDA	U.S. Department of Agriculture
VOC	Volatile organic compound

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

Weston Weston Solutions, Inc.

1. INTRODUCTION

This report presents the results of the Remedial Investigation (RI) conducted at the Lane Plating Works, Inc. Superfund Site (site) in Dallas, Dallas County, Texas. The U.S. Environmental Protection Agency (EPA) authorized EA Engineering, Science, and Technology, Inc., PBC (EA) to conduct RI activities under Remedial Action Contract Number EP-W-06-004 and Task Order 68HE0618F0309. The investigation was conducted in accordance with "*Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*" (Comprehensive Environmental Response, Compensation, and Liability Act) (EPA 1988).

1.1 PURPOSE

The purpose of the RI Report is to: (1) summarize site information and data, (2) identify potential source areas, (3) define the nature and extent of contamination, (4) evaluate contaminant migration pathways, and (5) present a summary of Human Health and Ecological risks. These elements provide the basis for the conceptual site model (CSM). This RI report will be used as a foundation for the future remedial alternative evaluation in the Feasibility Study (FS) and will support remedy selection in the Record of Decision (ROD).

1.1 SITE BACKGROUND

Background information was compiled from information gathered during the site investigation. Sources of information include, but are not limited to:

- Removal Report for Lane Plating Removal Action (Weston Solutions, Inc. [Weston] 2016)
- Preliminary Assessment (PA) (Texas Commission on Environmental Quality [TCEQ] 2016)
- Site Inspection (SI) Report, January 2017 (TCEQ 2017)
- Hazard Ranking System (HRS) Documentation Record (EPA 2018a).

1.1.1 Site Location and Description

Based on information adapted from the 2018 HRS Documentation Record (EPA 2018a), the site is located at 5322 Bonnie View Road, approximately 5 miles south of downtown Dallas, Dallas County, Texas (Figure 1-1). It is situated immediately east of Bonnie View Road on 4.6 acres and is surrounded on all sides by open or wooded land. Land use is listed as residential and commercial in the surrounding area. The original facility building and adjacent structures are still present and include the main facility building where the majority of electroplating operations took place, a storage shed structure known as the Hazardous Waste Treatment Building (HWTB), and a former wastewater treatment building with miscellaneous tractor trailers located south of the facility and HWTB (Figure 1-2). A barbed wire fence and locked chain-link fence surround the property.

Asphalt/concrete cover extends from the facility entrance to the driveway and footprint around the facility building. Soil and vegetation are exposed on all other sides. Two old, unused water wells are located on the north side of the facility building. Old equipment and trash surround the facility in open and wooded areas located to the east and south. According to the Dallas Central Appraisal District, the office building was built in 1950.

The closest residences are located approximately 200 to 300 feet (ft) west of the facility along Bonnie View Road, and a baseball diamond is located approximately 650 ft south of the facility. There are no daycare facilities, schools, or churches located in the immediate vicinity of the facility. However, as indicated on Figure 1-1, there are several day care facilities, schools, a college, and other receptors located in the surrounding community.

During the course of the RI, the following exposure areas were identified based on operational areas, surface features, and collected soil, surface water, and groundwater quality data:

Soil

- Process Area
- Open Area

Surface Water

- Drainage System consisting of Stream 5A2 (east of the site) and the unnamed stream (south of the site)

Sediment

- Drainage System consisting of Stream 5A2 (east of the site) and the unnamed stream (south of the site)

Groundwater

- Perched groundwater above/within upper portion of the Austin Chalk.

1.1.2 Soil Exposure Area Descriptions

The soil exposure areas correspond to the evaluation zones shown on Figure 1-3. This figure also illustrates historical site features associated with these exposure areas. Information pertaining to the current and historic use of the soil exposure areas is provided below.

1.1.2.1 Process Area

This exposure area is the developed portion of the site directly surrounding the buildings and other associated structures. It is situated within a barbed-wire fence that surrounds this area. This area was historically used by the facility and has the highest detections of hexavalent chromium and other metals. As a result, this area is the primary location of soil source areas. Sample locations G7, SO-03, and SO-08 are shown just outside the barbed wire fence area surrounding the buildings. However, a review of sample results from these locations revealed metals concentrations consistent with sample locations inside the barbed wire fence. Therefore, these sample locations have also been included within the Process Area.

1.1.2.2 Open Area

This exposure area is the remaining portion of the site outside the barbed wire fence. It is bounded by the unnamed stream to the south, Stream 5A2 to the east, undeveloped land to the north, and Bonnie View Road to the west. It is undeveloped, but there are areas where old trailers and discarded debris are located within this exposure area, particularly just south and east of the barbed wire fence that demarks the boundary between the two exposure areas.

1.1.3 Sediment and Surface Water Exposure Area Description

The sediment and surface water exposure area is limited to selected surface water features near the site (Figure 1-2). The developed portion of the site is situated in a topographically higher area at the site bounded to the south and east by the bottomlands associated with an unnamed stream and Stream 5A2. Based on information gathered during the RI, the unnamed stream is intermittent and only contains water during heavy rain events, while Stream 5A2 is perennial. These 2 surface water features merge at two separate locations, with the closest being just south/southeast of the site, and the more distal location being situated approximately 875 ft southeast of the site. Regional surface water flow associated with Stream 5A2 is to the south, just east of the site, before turning and trending in a more easterly and northeasterly direction, where this surface water feature and the unnamed stream merge east of the site. The surface water flow for the unnamed stream is to the east until merging with Stream 5A2.

In addition, there is a small pond located immediately east of the site, and a larger pond situated approximately 520 ft farther east of the site (Figure 1-2).

1.1.4 Groundwater Exposure Area Descriptions

Groundwater exposure was evaluated site-wide. During the RI, shallow perched groundwater was encountered above the Austin Chalk under the developed portion of the site. This condition prompted the installation of shallow monitoring wells within this perched groundwater zone situated above the Austin Chalk, as well as deeper monitoring wells installed with surface casing and completed into the upper portion of the Austin Chalk. Two hand-dug wells/cisterns, each approximately 32 ft in depth, were previously documented at the site, on the north side of the main building, and were also sampled as part the RI. A third hand-dug well/cistern was discovered on the north side of the main building during the RI, but it was dry and could not be sampled.

1.1.5 Site History

The site was historically occupied by a former electroplating facility that conducted primarily hard chromium and cadmium plating for approximately 90 years until 2015. Additional processes included chromate dips, chromic acid anodize, hard chrome plating using chromic acid, cadmium plating, copper plating using copper cyanide, zinc plating aluminum using nitric acid and zinc cyanide, nickel plating using nickel sulfate, black oxide coating, electroless nickel, passivation, machining and grinding, stripping of metal parts in acid, pretreatment of metal parts using sodium hydroxide and sulfuric acid, operating a lead melting pot to repair anodes used in

plating baths, and electroplating wastewater treatment. Resource Conservation and Recovery Act and TCEQ Notice of Registration records document the following waste streams: corrosive and reactive waste, cadmium, chromium, lead, spent chromic acid solution, spent muriatic acid, chromate, metals filings and dust, cyanide waste, caustic waste, caustic soda solid (tank bottoms), and wastewater treatment sludges from electroplating operations. Operations ceased in 2015 with numerous violations, investigations, and bankruptcy.

1.1.6 Previous Investigations

Based on information adapted from the 2018 HRS Document Record (EPA 2018a), the site has been investigated by several state and federal agencies over the past 40 years, and releases of plating wastes to onsite soils have been documented by recent investigations. TCEQ conducted investigations at the site in February 2010 and January 2011. Analytical results from soil samples collected from a waste pile and around the facility foundation indicated leachable cadmium, chromium, lead, and mercury concentrations. Formal enforcement action was requested based on numerous violations, including the failure to obtain a permit prior to disposal of hazardous waste and to prevent unauthorized discharge of industrial solid waste. A Notice of Enforcement (NOE) letter and a Proposed Agreed Order were transmitted to the facility in April and July 2011, respectively, which also included a fine. TCEQ conducted a follow-up investigation in October 2014 and noted several additional issues and alleged violations of waste management, including the failure to install a secondary containment unit for a hazardous waste tank. Onsite soil samples indicated total chromium, hexavalent chromium, antimony, arsenic, cadmium, mercury, and nickel detections above the EPA Superfund Chemical Data Matrix (SCDM) soil exposure pathway benchmarks and lead above the EPA interim screening level (SL). The Department of Labor Occupational Safety and Health Administration issued a fine to the facility in January 2015 based on inspections made in 2014. Violations were related to the upkeep, use, and provision of required safety equipment and training for employees in addition to proper storage and disposal of chemicals. Specific violations of note included storing sodium hydroxide together with sulfuric acid and exposing employees to hexavalent chromium. Violations documented hexavalent chromium on surfaces inside the facility building. A second NOE letter was transmitted to the facility in March 2015.

TCEQ conducted an investigation in November 2015 to determine if conditions posed an immediate threat to nearby residents and if grinding grit had spread off the facility property. Grinding grit was observed on the ground surface south and southeast of the HWTB. Leaks, openings in the walls, and yellow stains believed to be chromium were observed in the facility building. Yellow stains were additionally observed on the west side of the facility building on the exterior southeast corner. Soil samples were collected from the southern boundary of the property at a depth of 0-3 inches (in.) below ground surface (bgs). Antimony, arsenic, cadmium, chromium, and mercury were detected above SCDM soil exposure pathway benchmarks, and lead was detected above the SL.

TCEQ conducted a limited removal action in November and December 2015. The scope of work included hazard characterization analysis/chemical characterization of chemicals in the facility lab, lab pack and re-packaging of select chemicals, the removal of chromic acid sludge from two sumps at the facility, and securing the chromic acid waste into poly totes. All outside doors to

the facility building were secured and locked, and metal cattle panels were used to secure the first floor windows. As State enforcement was exhausted, TCEQ referred the site to the EPA Region 6 Superfund Program for further evaluation.

Representatives from TCEQ and EPA Superfund Removals program conducted a facility visit in February 2016 and observed incompatible wastes stored together, staining, visibly impacted soils, wastes appearing to seep underneath the facility foundation, and large volumes of hazardous wastes. Grab samples collected by TCEQ from the two shallow facility water wells in February 2016 contained concentrations of chromium and hexavalent chromium above SCDM groundwater pathway benchmarks and the Maximum Contaminant Level (MCL).

In March 2016, the EPA Emergency Management Branch tasked an EPA Region 6 Superfund Technical Assessment Response Team contractor to perform a Removal Assessment (RA) at the site, which is documented in the Removal Report (Weston 2016) completed for the site. A two-phase remedial action was conducted at the site in April and September 2016 (EPA 2018a). Excessive chromium staining on the floor and small pools of plating wastes from ongoing releases were observed in the facility building, in addition to chromium staining on the outside of the building from past spills and releases.

Based on information provided by EPA during the April 2016 RA field event, composite five-point soil sampling was conducted within 37 grids of 50 ft by 50 ft along the exterior of the facility. Within each grid, sample aliquots were collected from each corner and from the center of the grid at a depth of 0 to 6 in. bgs. The aliquots were then combined and containerized as a composite sample. Five biased grab soil samples were collected by the EPA Team in areas previously identified by TCEQ to have elevated concentrations of lead and chromium along the southeastern part of the site. A total of 36 soil samples and 4 liquid waste samples were collected to determine the nature and extent of site related hazardous constituents associated with electroplating waste (plating waste) in onsite soils. Liquid waste samples were used to verify if liquids contained in an unknown number of drums and totes were considered hazardous substances. Soil samples were submitted for analysis of metals and hexavalent chromium. Soil analytical data was compared to the May 2016 Regional Screening Levels (RSLs), Industrial Soil (Target Hazard Quotients = 1.0). The liquid waste characterization results were compared to 40 Code of Federal Regulations Part 261. Based on the analytical results, hexavalent chromium, lead, and mercury contaminated soil was present around the footprint of the building. Hexavalent chromium was reported in 17 grids exceeding the EPA RSL of 6.3 milligrams per kilogram (mg/kg). Hexavalent chromium contaminated soil ranged in concentration from 167 mg/kg (Grid E7) to 5,620 mg/kg (Grid G7). Lead exceeded the EPA RSL of 800 mg/kg in 6 grids. Mercury was observed above instrument detection limits in several grids but only exceeded in 1 grid above the EPA RSL of 46 mg/kg.

During the September 2016 RA field event, composite five-point soil samples were collected from within approximately 72 grids. Samples were collected at 3 depth intervals: 0 to 6 in. bgs, 6 to 12 in. bgs, and 12 to 18 in. bgs. Soil samples were submitted for analysis of metals and hexavalent chromium. A total 216 samples (192 normal, 20 duplicate, and 4 equipment) were collected during this sampling event. Samples collected at the 6 to 12 in. interval were placed on hold pending analytical results from the 0 to 6 in. and 12 to 18 in. intervals. Based on the

analytical results, hexavalent chromium, lead, and mercury contaminated soil was present around the footprint of the building. Hexavalent chromium was reported in 3 grids exceeding the May 2016 EPA RSL of 6.3 mg/kg. Hexavalent chromium contaminated soil ranged in concentration from 9.69 mg/kg (Grid H4 at a depth of 18 in.) to 203 mg/kg (Grid E6 at a depth of 6 in.). Lead exceeded the EPA RSL of 800 mg/kg in 1 grid at a concentration of 3,740 mg/kg (E6 at a depth of 6 in.). Mercury was reported in 2 grids exceeding the EPA RSL of 46 mg/kg, ranging from 46.2 mg/kg (I10 at a depth of 6 in.) to 77.8 mg/kg (E6 at a depth of 6 in.).

Based on information adapted from the 2018 HRS Documentation Record (EPA 2018a), samples of chromic acid waste collected during the 2016 RA field events were confirmed to be hazardous. Hazardous characterization identification of waste containers was performed, and remaining vats and sumps were pumped and transferred into compatible containers. Waste containers were transported from the facility to authorized facilities for final disposal in November 2016. The following waste streams were identified: cyanide solution and solids, chromic acid and chromic acid sludges/solids, sulfuric acid, flammable aerosol and liquids, acid solids and liquids, neutral solids and liquids, elemental mercury, caustic solids and liquids, and soil.

In July 2016, TCEQ also performed a SI sampling event to evaluate the surface water pathway (TCEQ 2017). Antimony, cadmium, chromium, copper, lead, mercury, nickel, and zinc were detected at elevated concentrations in soil along the overland segments at depths up to 6 to 8 in. bgs. Of these, arsenic, cadmium, chromium, and mercury were detected above SCDM soil exposure pathway benchmarks, and lead was detected above the SL in soil. Chromium, cyanide, lead, and mercury in sediment at depths of 0 to 6 or 6 to 12 in. bgs; and aluminum, arsenic, chromium, copper, iron, lead, manganese, mercury, nickel, and zinc in surface water were detected at elevated concentrations in the surface water pathway. Of these, aluminum, copper, iron, lead, and zinc were detected above SCDM surface water pathway environmental benchmarks (chronic, fresh criteria continuous concentration).

In January 2018, the HRS Documentation Record was prepared for the site, and in May 2018 the site was placed on the National Priority List (EPA 2018b).

1.2 REPORT ORGANIZATION

This RI Report is organized to provide a foundation for the remedial alternative evaluation in a FS and support remedy selection in the ROD. Section 2 summarizes the RI activities. The physical characteristics (e.g., geology, hydrogeology, etc.) of the site are presented in Section 3. In Section 4, an evaluation of the analytical data from historical and the RI field activities is provided. In Section 5, potential source areas are identified, the nature and extent of contamination is defined, and contaminant migration pathways are evaluated. The Human Health Risk Assessment (HHRA; EA 2020b) findings are summarized in Section 6. Section 7 contains a summary of the Ecological Risk Assessment (ERA; EA 2020a). The conclusions and recommendations are presented in Section 8. References are contained in Section 9.

2. EPA REMEDIAL INVESTIGATION ACTIVITIES

This section presents a summary of the data collection activities conducted for the RI. Activities can be grouped into 3 stages (i.e., project planning, data acquisition, and data evaluation) which work interchangeably to ensure that project objectives are satisfied.

2.1 PROJECT PLANNING

The following site-specific plans were prepared to present the overall approach for the RI field program:

- The Health and Safety Plan (EA 2018) specified employee training, protective equipment, medical surveillance requirements, standard operating procedures, and contingency planning procedures.

- The Sampling and Analysis Plan (SAP) (EA 2019a), which also included the Quality Assurance Project Plan (QAPP) and Field Sampling Plan (FSP) as well as the Site Management Plan (SMP). The FSP section detailed data collection methods, proposed sample locations and frequency, sampling equipment and procedures, and analytical methods required to collect sufficient data to perform the RI. The QAPP section documented the planning, implementation, and assessment procedures, as well as specific quality assurance (QA)/quality control (QC) activities; and the SMP section addressed site access, security, pollution control, contingency procedures, management responsibilities, data management, and waste disposal.

- The Addendum 01 SAP (EA 2019b) presented revised certain sections of the SAP (EA 2019a) and added specific information pertaining to Phase 2 RI activities. These activities included installation and sampling of additional soil borings, monitoring wells, and sediment and surface water samples. Background investigations for surface soil, subsurface soil, sediment, and surface water were also conducted.

The SAP and subsequent Addendum 01 were prepared in accordance with 40 Code of Federal Regulations 300.415(b)(4)(ii). The SAP and subsequent Addendum 01 described procedures that were used to ensure that the project-specific data quality objectives (DQOs) were met and that the quality of data (represented by precision, accuracy, completeness, comparability, representativeness, and sensitivity) was known and documented. The SAP and subsequent Addendum 01 presented the project description, project organization and responsibilities, and QA objectives associated with the sampling and analytical services to be provided in support of the RI.

The QAPP section of the SAP was prepared in accordance with EA's Quality Management Plan (EA 2012) and met requirements set forth in *EPA Requirements for Quality Assurance Project Plans for Environmental Data Operation (QA/R-5)* (EPA 2001) and *Guidance for Quality Assurance Project Plans (QA/G-5)* (EPA 2002).

2.2 DATA ACQUISITION

Field sampling activities for the RI were conducted in two phases, which occurred in May 2019 and January and February 2020. EA collected a total of 206 soil samples (and 31 field duplicates), with 101 of these being surface soil and 105 being subsurface soil. Forty of these soil samples were collected for an offsite background soil investigation. During the RI, EA also collected 30 sediment samples (and 5 field duplicates), with 10 of the sediment samples being collected upstream of the site in Stream 5A2 and the unnamed stream to be used as part of a background sediment investigation. EA also collected 29 surface water samples (and 6 field duplicates), with 8 of the surface water samples being collected upstream of the site in Stream 5A2 and the unnamed stream to be used as part of a background surface water investigation. In addition, EA collected 21 groundwater samples (and 7 field duplicates), with 3 of these samples being collected from the monitoring wells installed into the upper portion of the Austin Chalk, 4 of the samples collected from the onsite hand-dug wells/cisterns, and the remainder being collected from monitoring wells installed in the perched groundwater zone above the Austin Chalk. EA also collected waste characterization samples to profile and characterize investigation-derived waste (IDW) generated as part of the RI activities.

A series of historical field investigations by TCEQ and EPA occurred from 2010 through 2016. The soil data collected by EPA as part of the 2016 RA (Weston 2016) and soil, sediment, and surface water data collected by TCEQ for the SI Report (TCEQ 2017) were carried forward for further evaluation under the RI and risk assessments. The historical datasets include:

- 180 surface soil samples collected as part of the 2016 RA (Weston 2016)
- 8 surface soil samples collected as part of the TCEQ SI Report (TCEQ 2017)
- 15 sediment samples collected as part of the TCEQ SI Report (TCEQ 2017)
- 13 surface water samples collected as part of the TCEQ SI Report (TCEQ 2017).

Below is a chronology of data acquisition activities that occurred during the RI field events.

Phase 1 Remedial Investigation field activities

- During the week of 6 May 2019, EA performed a site reconnaissance to mark sample locations, coordinated with vendors to have a storage container and portable restrooms delivered to the site, provided oversight of the drilling subcontractor while soil boring and monitoring well locations were cleared for buried utilities, and initiated mobilization of supplies and field equipment to be used for the Phase RI 1 field investigation.

- During the week of 13 May 2019, EA completed mobilization activities; completed collection of soil, sediment, and surface water samples per the SAP; and installed and developed groundwater monitoring wells.

- During the week of 20 May 2019, EA collected global positioning system coordinates for the soil boring and groundwater monitoring well locations and demobilized field equipment and unused coolers/field supplies from the site. EA also collected a sample of drummed soil cuttings so that it could be analyzed for disposal.

- During the week of 27 May 2019, EA used low-flow methods to collect groundwater samples from the 2 onsite supply wells and the 3 newly-installed groundwater monitoring wells. EA also collected a sample of drummed water so that it could be analyzed for disposal.

Phase 2 Remedial Investigation field activities

- During the week of 6 January 2020, EA staff performed a site reconnaissance to mark sample locations, coordinated with vendors to have a storage container and portable restrooms delivered to the site, provided oversight of the drilling subcontractor while soil boring and monitoring well locations were cleared of buried utilities, and initiated mobilization of supplies and field equipment to be used for the Phase 2 RI field event.

- During the week of 13 January 2020, EA staff completed mobilization activities and initiated collection of soil, sediment, and surface water samples, and installation of perched zone monitoring wells per the Addendum 01 SAP. A portion of the sediment/ surface water sampling locations associated with the unnamed stream were dry, and surface water could not be sampled at these locations.

- During the week of 20 January 2020, EA staff installed the Austin Chalk monitoring wells and collected soil samples from the well boreholes. EA staff also installed soil borings and collected soil samples from the offsite background soil investigation area and collected the remaining sediment and surface water samples from the background sediment/surface water locations that could be sampled. EA staff also developed new wells that made groundwater and supervised the installation of surface completions for the Phase 2 RI monitoring wells.

- During the week of 3 February 2020, EA staff conducted a site-wide groundwater sampling event that included the existing monitoring wells and hand-dug water wells/cisterns, as well as the new monitoring wells installed during the Phase 2 field event. EA also coordinated with vendors to have a storage container and portable restrooms used during the Phase 2 RI field event removed from the site. EA also collected samples of IDW for use when profiling and manifesting the IDW for disposal.

- During the week of 2 March 2020, an EA field crew surveyed top of casing elevations for monitoring wells installed during the RI, and also completed a site-wide groundwater gauging event.

As indicated above, the following key activities were conducted during the RI:

- Media characterization of soil, sediment surface water, and groundwater
- Installation of soil borings and permanent groundwater monitoring wells
- Determining the total depth of existing supply hand-dug water wells/cisterns
- Collection of background samples for soil, sediment, and surface water.

Site photos documenting the RI field event are included in Appendix A. Copies of field books and forms documenting the RI field activities are included as Appendix B. A summary of the investigation activities is provided in the following sections.

2.2.1 Media Characterization

Soil, sediment, surface water, and groundwater were sampled and analyzed to characterize chemical and physical characteristics of media. A summary of the media characterization activities that were conducted during the RI is presented in the following sections. The data quality assessment for the data collected during the RI was evaluated in the Data Evaluation Summary Report (DESR), which was submitted under separate cover.

2.2.1.1 Soil Sampling

During the RI field events, EA conducted both surface soil sampling (0-2 ft bgs) and subsurface soil sampling (greater than 2 ft bgs) at the site, and on property located south of the site. Soil samples were also collected from a more distal property located northeast of the site for a background soil investigation. A total of 101 surface soil and 105 subsurface soil samples were collected during the RI, with 40 of these soil samples collected from the offsite property for the background soil investigation. There were also historical soil samples collected prior to the RI that were carried forward for evaluation under the RI and risk assessments. These include 180 surface soil samples collected during the 2016 RA (Weston 2016) and 8 surface soil samples collected during the 2016 TCEQ SI (TCEQ 2017). Two of the surface soil samples collected during the 2016 TCEQ SI were background samples, and data for these were added to the surface soil dataset used to calculate the site-specific background concentrations for surface soil.

Table 2-1 provides a summary for the soil samples collected during the RI. As indicated on this table, the soil samples collected during the 2019 Phase 1 RI field event were analyzed for target analyte list (TAL) metals, hexavalent chromium, and cyanide, with a subset (10 percent [%]) of these samples also being analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), pH, oxidation-reduction potential (ORP), and total petroleum hydrocarbons (TPH). During the 2020 Phase 2 RI field event, collected soil samples were analyzed for TAL metals and hexavalent chromium, with a portion of the soil samples also being analyzed for PFAS, pH, and ORP. As also noted on Table 2-1, surface soil samples SS-08 and SS-09 were offsite sample locations collected from the baseball field located south of the site. Additional offsite surface soil samples had been planned for residential properties, but could not be collected, due to not being able to obtain executed access agreements, and due to the COVID-19 outbreak.

Table 2-2 provides a summary for the historical soil samples collected during the 2016 RA and the TCEQ SI. As indicated on this table, the surface soil samples collected during the 2016 RA were analyzed for TAL metals and hexavalent chromium, and the surface soil samples collected during the 2016 TCEQ SI were analyzed for TAL metals and cyanide.

Figure 2-1 illustrates soil sample locations used to determine nature and extent of surface soil contamination and the locations of offsite background soil samples. Figure 2-2 illustrates soil

sample locations used to determine onsite nature and extent of contamination for subsurface soil and the offsite subsurface soil sample locations used for the offsite background soil investigation. These figures show the locations of soil samples collected during the RI field events, as well as the locations of soil samples collected during the 2016 RA and the 2016 TCEQ SI.

With the exception of the subsurface soil samples collected from the chalk bedrock associated with the Austin Chalk monitoring wells, the majority of the soil samples collected during the RI were collected at discrete locations from soil cores as the soil and well boreholes were being advanced using direct-push technology (DPT) or hollow-stem auger (HSA) drilling methods. A small portion of the surface soil samples were also collected using a hand auger. In the case of bedrock samples collected from the Austin Chalk monitoring well boreholes, the samples were collected from soil cuttings generated with flight augers as the monitoring well borehole was advanced through the bedrock. A field geologist logged soil materials using the Unified Soil Classification System (USCS). Copies of soil boring and well logs are provided in Appendix C.

2.2.1.2 Sediment Sampling

As part of the RI, sediment samples were collected from 30 locations, with data from 20 of the sample locations used to determine nature and extent, and data from 10 of the locations used to complete the background sediment investigation. The investigatory sediment samples were collected from Stream 5A2 situated east of the site, the unnamed stream situated south of the site, a downstream segment of the drainage system after these two surface water bodies merge, and from two ponds situated east of the site. The background investigation samples were collected in upstream segments of Stream 5A2 and the unnamed stream.

Figure 2-3 illustrates the location of the sediment samples collected during the RI, as well as the sediment samples collected as part of the 2016 TCEQ SI. Table 2-3 provides a summary for the sediment samples collected as part of the RI. As indicated on the table, sediment samples collected during the 2019 Phase 1 RI field event were analyzed for TAL metals, hexavalent chromium, and cyanide, with a subset (10%) also being analyzed for VOCs, SVOCs, PFAS, PCBs, TPH, acid volatile sulfide/simultaneously extracted metals (AVS/SEM), ORP, total organic carbon (TOC), and pH. Sediment samples collected during the Phase 2 RI field event were analyzed for TAL metals and hexavalent chromium, with a subset also being analyzed for AVS/SEM, ORP, TOC, and pH.

Table 2-4 provides a summary for the sediment samples collected as part of the 2016 TCEQ SI. As indicated on this table, these sediment samples were analyzed for TAL metals and cyanide. Two of the sediment samples were background samples, and data for these were added to the sediment dataset used to calculate the site-specific background concentrations for sediment.

2.2.1.3 Surface Water Sampling

As part of the RI, 29 surface water samples were collected from 28 locations, with the samples from 21 of the sample locations used to determine nature and extent, and data from 8 of the locations used to complete the background surface water investigation. The investigatory samples were collected from Stream 5A2 situated east of the site, the unnamed stream situated

south of the site, a downstream segment of the drainage system after these 2 surface water bodies merge, and from two ponds situated east of the site. The background investigation samples were collected in upstream segments of Stream 5A2 and the unnamed stream.

Figure 2-4 illustrates the location of the surface water samples as well as the surface water samples collected as part of the 2016 TCEQ SI. Table 2-5 provides a summary for the surface water samples collected as part of the RI. As indicated on this table, surface water samples collected during the 2019 Phase 1 RI field event were analyzed for total and dissolved TAL metals, hexavalent chromium, and cyanide, with a subset (10%) also being analyzed for VOCs, SVOCs, PFAS, PCBs, TPH, alkalinity, hardness, TOC, total dissolved solids (TDS), and total suspended solids (TSS). With the exception of LSW-04, surface water samples collected during the Phase 2 RI field event were analyzed for total and dissolved TAL metals and hexavalent chromium, with a subset being analyzed for alkalinity, hardness, TOC, dissolved organic carbon, TDS, and TSS. In the case of LSW-04, this sample location had originally been sampled during the 2019 Phase 1 RI field event, but was sampled again during the 2020 Phase 2 RI sampling event for PFAS in order to further evaluate the groundwater to surface water pathway for these compounds. It was also sampled for alkalinity, hardness, TOC, dissolved organic carbon, TDS, and TSS.

Table 2-6 provides a summary for the surface water samples collected as part of the 2016 TCEQ SI. As indicated on this table, a total of 13 surface water samples were collected, with 1 sample being a background sample and 2 samples being field duplicates. These samples were analyzed for total TAL metals and cyanide. The data for the background surface water sample were added to the surface water dataset used to calculate the site-specific background concentrations for surface water.

2.2.1.4 Groundwater Sampling from Monitoring wells

As part of the RI, EA collected a total of 21 groundwater samples (and 7 duplicates) from shallow monitoring wells installed in the perched groundwater zone above the Austin Chalk (MW-01 through MW-10), and the deeper monitoring wells installed with surface casing and completed into the upper portion of the Austin Chalk (ACMW-01 through MW-04). Two of the monitoring wells (MW-08 and ACMW-03) did not produce groundwater during the RI and so could not be sampled. Two of the existing hand-dug wells/cisterns were also sampled during the RI.

Figure 2-5 illustrates the location of the groundwater samples collected during the RI. Table 2-7 provides a summary for the groundwater samples collected during the RI. As indicated on this table, the groundwater samples collected during the 2019 Phase 1 RI field event were analyzed for total and dissolved TAL metals, hexavalent chromium, and cyanide, with MW-01 also being analyzed for VOCs, SVOCs, PCBs, PFAS, TPH, and TDS. During the 2020 Phase 2 RI field event, collected groundwater samples were analyzed for total and dissolved TAL metals, hexavalent chromium, and PFAS.

2.2.1.5 Installation of Groundwater Monitoring Wells

During the RI field events, a total of 14 groundwater monitoring wells were installed. For the shallow perched groundwater zone monitoring wells, the well boreholes were advanced by HSA drilling methods using a DPT rig. For the Austin Chalk monitoring wells, a drill rig equipped with 10 in. HSA tooling advanced the upper portion of the borehole into the upper portion of the Austin Chalk. Once this portion of the borehole had been completed then 8 in. surface casing was placed in the borehole, and a grout seal was placed in the bottom of the borehole as well in the open annulus surround the surface casing. Once the grout had time to sufficiently cure, a drill rig equipped with flight augers completed the well borehole into the upper portion of the Austin Chalk.

Each monitoring well was completed with 2 in. diameter schedule 40 polyvinyl chloride pipe with 0.010 in. machine slotted screen and silica sand filter pack. Details regarding the monitoring well construction are provided in Appendix C. The monitoring wells were installed to characterize groundwater flow, provide accurate potentiometric maps for the water-bearing unit of interest, and complete plume delineation. The well locations are provided on Figure 2-5.

During well installation, drilling activities were conducted under the supervision of a Professional Geologist licensed in the State of Texas. As the borings were advanced, the field geologist used samples of the collected soil cores for field screening and containerization of selected soil intervals for laboratory analyses and described the material in accordance with the USCS. Lithology and well construction details are presented in Appendix C.

2.2.1.6 Background Investigations

During the Phase 2 Field Event, background surface soil, subsurface soil, sediment, and surface water samples were collected to calculate 95 upper tolerance limits to support risk management decisions for chemicals that were identified as chemicals of potential concern (COPCs) based upon the results of the HHRA and ERA. Chemicals were not eliminated as COPCs, but the COPCs were screened against these calculated site-specific background concentrations as part of the RI to show their nature and extent using these screening criteria.

A total of 40 soil samples were collected for the offsite background soil investigation located northeast of the site, on the east side of Stream 5A2. The soil type with this offsite location (Frio silty clay, 0 to 1 percent slopes) was consistent with the same soil unit found on the south and east portion of the Open Area. A total of 17 of the samples were surface soil, and 23 of the samples were subsurface soil. Two background surface soil samples collected during the TCEQ SI were also used as part of the dataset when calculating the site-specific background concentrations for surface soil.

During the Phase 2 field event, 8 sediment samples were collected upstream of the site in Stream 5A2 and the unnamed stream as part of a background sediment investigation. Two additional sediment samples, LSED-13 and LSED-14, were collected during the Phase 1 field event, but because of them being in an upstream segment of Stream 5A2, they were also used in the dataset

when calculating the site-specific background concentrations for sediment, as were 2 background sediment samples collected during the 2016 TCEQ SI.

During the Phase 2 field event, 6 surface water samples were collected upstream of the site in Stream 5A2 and the unnamed stream as part of a background sediment investigation. Two additional surface water samples, LSW-13 and LSW-14, were collected during the Phase 1 field event, but because of them being in an upstream segment of Stream 5A2, they were also used in the dataset when calculating the site-specific background concentrations for sediment, as was 1 background surface water sample collected during the 2016 TCEQ SI.

The background upper tolerance limits used for the calculated site-specific background concentrations are presented in Appendix D.

2.2.2 Investigation-Derived Waste Disposal

During the RI field activities, 21 x 55-gallon drums of soil and 14 x 55-gallon drums of water were generated as IDW. This material was profiled, manifested, and transported for offsite disposal at a landfill permitted to accept this waste. Waste disposal documentation for these materials will be provided under separate cover. Appendix E contains documentation for disposal of the IDW.

2.2.3 Sustainable Practices

Large-scale investigations are intrusive endeavors that can utilize substantial resources. There is a delicate balance between collecting a statistically significant number of samples to adequately characterize an area and the goal of reducing the environmental footprint of the investigation. EPA was cognizant of this balance and sought out sustainable practices to reduce the environmental footprint as follows:

- Minimizing field mobilizations by combining investigation tasks
- Utilizing local contractors
- Purchasing materials locally
- Low-flow groundwater sampling to reduce IDW.

These measures correspond to several of the core areas suggested by EPA's Office of Solid Waste and Emergency Response (OSWER). Combining the investigation tasks, utilizing local contractors, and purchasing local materials helped to minimize air pollution and greenhouse gas emissions by reducing the amount of travel and shipping needed. Waste production was minimized by utilizing sampling methods to minimize IDW.

2.3 DATA EVALUATION

This section describes the procedures that were used to review, verify, and validate field and laboratory data. Procedures for verifying that the data are sufficient to meet DQOs and measurement quality objectives for the project are also discussed.

2.3.1 Data Review and Reduction Requirements

Data reduction and review are essential functions for preparing data that can be used effectively to support project decisions and DQOs. These functions must be performed accurately and in accordance with EPA-approved procedures and techniques. Data reduction includes computations and data manipulations that produce the final results that are used during the investigation. Data review includes procedures that field or laboratory personnel conduct to ensure that measurement results are correct and acceptable in accordance with the QA objectives.

The EPA Contract Laboratory Program (CLP) laboratories and/or subcontracted non-CLP private laboratory completed data reduction for chemical and physical laboratory measurements and completed an in-house review of laboratory analytical results. The laboratory QA manager for the private laboratory was responsible for ensuring that laboratory data reduction and review procedures followed the requirements stated in the SAP (EA 2019a). The laboratory QA manager for the private laboratory was also responsible for assessing data quality and for advising the EA QA manager of possible QA/QC problems with laboratory data. Field and laboratory measurement data reduction and review procedures and requirements are being summarized in the DESR, which was submitted under separate cover.

2.3.2 Validation and Verification Methods

Data collected during the RI field activities were evaluated in accordance with EPA's National Functional Guidelines. When analytical services were provided by EA-subcontracted laboratories, EA was responsible for data validation. The EA QA manager had the primary responsibility for coordinating EA's data validation activities. EA's data validation subcontractor conducted full validation on all subcontracted laboratory data for investigation samples. Validation was conducted in accordance with the EPA CLP National Functional Guidelines (EPA 2014). In addition to the EPA validation guidance documents, acceptance criteria presented in the SAP (EA 2019a) and analytical methods was used for the validation. Data validation conducted by EA was detailed in data validation reports, which were then incorporated into the DESR, which was submitted under separate cover.

Data that were generated by the CLP laboratories were validated by EPA's Environmental Services Assistance Team, who conducted full validation on at least 10% of subcontracted laboratory data for investigation samples. Data validation reports were summarized in the DESR, which was submitted under separate cover.

2.3.3 Reconciliation with Data Quality Objectives

The main purpose of a QA system is to define a process for collecting data that are of known quality, are scientifically valid, are legally defensible, and fully support decisions that will be based on the data. To achieve this purpose, the SAP (EA 2019a) required that the DQOs be fully defined.

After environmental data were collected, reviewed, and validated, a final evaluation of the data was conducted to determine whether the DQOs specified in the SAP (EA 2019a) were met. This

evaluation was conducted in the DESR, which was submitted under separate cover and summarized in Section 4.

3. PHYSICAL CHARACTERISTICS

Data on the physical characteristics of the site and surrounding areas were collected to establish a basis of understanding for the source, nature and extent, and migration pathways. Also, these data were used to identify receptor populations for the HHRA (EA 2020b) and ERA (EA 2020a). Finally, the physical characteristics will be used to develop and screen remedial action alternatives in the FS. Information on the following physical characteristics is presented below:

- Surface features
- Meteorology
- Surface water hydrology
- Geology
- Hydrogeology
- Soils
- Cultural and historical features
- Demography and land use/reuse.

These elements are integral to the development of the CSM, which is presented in Section 5.

3.1 SURFACE FEATURES

The site is 4.6 acres in size and is surrounded on all sides by open or wooded land. Land use is listed as residential and commercial in the area. The original facility building and adjacent structures are still present and include the main facility building where the majority of electroplating operations took place, a storage shed structure known as the HWTB, and a former wastewater treatment building with miscellaneous tractor trailers located south of the facility and HWTB (Figure 1-2). A barbed wire fence and locked chain-link fence surround the property.

Asphalt/concrete cover extends from the facility entrance to the driveway and footprint around the facility building. Soil and vegetation are exposed on all other sides. Three old, unused hand-dug water wells/cisterns are located on the north side of the facility building; one was dry when it was discovered during the Phase 2 field event. Old equipment and trash surround the facility in open and wooded areas located to the east and south.

3.2 GEOLOGY

The site is underlain by Quaternary alluvium and Pleistocene fluviatile terrace deposits. The Quaternary alluvium is comprised of flood plain deposits of gravel, sand, silt, silty clay, and organic matter. Fluviatile terrace deposits consist of gravel, sand, silt, and clay in contiguous terraces. These deposits range in thickness from approximately 0 to 75 ft bgs. The Quaternary sediments are underlain by the Cretaceous Austin Chalk. The upper and lower parts of the Austin Chalk consist of mostly massive microgranular calcite and some interbeds and partings of calcareous clay, with thin bentonitic beds locally in the lower part. The middle part of the Austin Chalk is mostly thin-bedded marl with interbeds of massive chalk. The Austin Chalk has a thickness of approximately 300 to 500 ft (TCEQ 2016).

Underlying the Austin Chalk is the Eagle Ford Group of Cretaceous age, which is 200 to 300 ft thick and comprised predominantly of shale with thin beds of limestone and bentonite. The Cretaceous Woodbine Formation underlies the Eagle Ford Group. This formation is approximately 175 to 250 ft thick and composed mostly of sandstone. The Woodbine is underlain by the Cretaceous Washita and Fredericksburg Groups, which consist primarily of limestone, dolomite, marl, and shale. The Fredericksburg and Washita Groups have a combined thickness of approximately 1,250 ft and separate the Woodbine from the underlying Paluxy Formation of the Trinity Group. The Paluxy Formation is the upper member of the Trinity Group, approximately 400 ft thick, and is comprised mostly of sand/sandstone and some shale and limestone. The Glen Rose Formation divides the 2 Trinity Group aquifer formations in the area and consists of limestone, marl, shale, and anhydrite. It can reach thicknesses of up to 1,500 ft The Twin Mountains Formation, originally named the Travis Peak Formation, consists of sand, silty clay, and siliceous conglomerates of chert, quartzite, and quartz pebbles, and has a thickness of up to 1,000 ft (TCEQ 2016).

Based on data collected during the RI, the developed portion of the site is located on Pleistocene fluviatile terrace deposits situated on top of the Austin Chalk. Table 3-1 provides a summary of subsurface conditions encountered at each of the RI soil boring and monitoring well locations. As indicated on this table, the depth to encountering the Austin Chalk ranged from 2 ft bgs in the vicinity of ACMW-03/MW-08 to 17.5 ft bgs in the vicinity of MW-10, with the average depth being approximately 11 ft bgs across much of the site. However, it was not encountered in the vicinity of MW-02 or MW-03, which were installed to 25 and 20 ft bgs, respectively, on the east portion of the site, more proximal to Stream 5A2. This pattern suggests the area where these latter 2 wells are located is in Quaternary alluvium associated with Stream 5A2. It should also be noted that the deeper depth to bedrock in the vicinity of ACMW-04 and MW-10, as well as bedrock not being encountered shallower than 15 ft bgs at soil borings JSB-4, JSB-5, JSB-6, and JSB-9, suggests a paleo-structure, such as a small erosional trough or former stream channel, may exist beneath the northwest portion of the site. The terrace deposits that overlay the Austin Chalk bedrock consist primarily of clay, silty clay, with lesser amounts of localized sandy/silty clay units.

Cross-sections for the site were prepared based upon the lithology encountered during monitoring well installation and soil boring. Cross-sections are included on Figures 3-1 and 3-2; the cross-section transects are illustrated on Figure 3-3. As indicated on Figure 3-1, which trends from north to south through the west portion of the site, shallow Austin Chalk bedrock occurs in the vicinity of ACMW-03 and MW-08, but depth to the bedrock quickly increases in the vicinity of MW-10 and then become somewhat shallower in the vicinity of ACMW-04, with an overall trend of deepening of the bedrock in a southward direction. As indicated on Figure 3-2, which trends from northwest to southeast through the central portion of the site, the Austin Chalk bedrock is deeper in the vicinity of MW-10 but then becomes somewhat shallower in the vicinity of ACMW-02/MW-09 and ACMW-01/MW-01 before there is a deepening trend of the bedrock in a southeast direction, where it was not encountered when installing MW-03. As also noted on these figures, clay and silty clay make up the units overlying the Austin Chalk. These units contain the perched groundwater zone situated on top of the Austin Chalk.

Logs for groundwater monitoring wells and soil borings are included in Appendix C.

3.3 SOIL

The United States Department of Agriculture (USDA) Natural Resources Conservation Service Custom Soil Resource Report generated for the site (USDA 2019; Appendix F) identifies the following soil series associated with the site:

Map Unit Symbol	Map Unit Name	Site Distribution
37	Frio silty clay, 0 to 1% slopes, frequently flooded	Extreme south southeast and east portions of the site.
38	Frio-Urban land complex, frequently flooded	Extreme southwest corner of the site.
49	Lewisville-Urban land complex, 0 to 4%t slopes	The main part of the site that contains the site structures.

Figure 3-4 illustrates the distribution of theses soil types at the site and on adjoining properties.

3.3.1 Frio Silty Clay, 0 to 1 Percent Slopes, Frequently Flooded

This soil unit is associated with floodplains, is well drained, and has formed from calcareous clayey alluvium derived from mudstone and/or calcareous loamy alluvium derived from mudstone. The water table is usually located at a depth of more than 80 in. A representative soil profile includes: Ap (0 to 6 in.) silty clay, A (6 to 50 in.) silty clay, and Bk (50 to 80 in.) silty clay. This soil type has a high available water storage (about 10 in.) and moderately low to moderately high (0.06 to 0.20 inches per hour [in/hr]) capacity to transmit water (USDA 2019).

3.3.2 Frio-Urban Land Complex, Frequently Flooded

This soil unit is associated with floodplains, is well drained, and has formed from loamy alluvium of Holocene age derived from mixed sources. The water table is usually located at a depth of more than 80 in. A representative soil profile includes: H1 (0 to 53 in.) silty clay, H2 (53 to 74 in.) silty clay loam, and H3 (74 to 80 in.) silty clay loam. This soil type has a high available water storage (about 10.2 in.) and moderately high (0.20 to 0.57 in/hr) capacity to transmit water (USDA 2019).

3.3.3 Lewisville-Urban Land Complex, 0 to 4 Percent Slopes

This soil unit is associated with stream terraces, is well drained, and has formed from alluvium of Quaternary age derived from mixed sources. The water table is usually located at a depth of more than 80 in. A representative soil profile includes: H1 (0 to 17 in.) silty clay, H2 (17 to 42 in.) silty clay, H3 (42 to 75 in.) silty clay. This soil type has a high available water storage (about 9.9 in.) and moderately high to high (0.57 to 1.98 in/hr) capacity to transmit water (USDA 2019).

3.4 HYDROLOGY

As indicated on Figure 3-5, the site is situated on a slight slope that is topographically lower than the surrounding area that contains residential and commercial development to the northwest and north. To the southeast and east, the site is adjacent to the bottomlands associated with Stream

5A2 and the unnamed stream, with the primary surface drainage pattern across the site being to the south and southeast toward the unnamed stream. As indicated on Figure 3-6, the south and east portions of the site (making up the Open Area) are in designated flood zones. There are also designated flood zones associated with Stream 5A2 and the unnamed stream, but these zones are upstream from the site to the north and west, and are not expected to be prone to impact from flooding at the site, given the Process Areas to the north and northwest are topographically higher than the site.

3.4.1 Aquifer Properties

The site overlies the Quaternary alluvium and Pleistocene fluviatile terrace deposits and the Austin Chalk. The Quaternary alluvium and Pleistocene fluviatile terrace deposits are generally irregular in thickness and extent in close proximity to the site, as well as along Five Mile Creek and the Trinity River to the east of the site. Several nearby groundwater monitoring wells are installed to the northwest, northeast, and east of the site to an average depth of 40 ft bgs. These monitoring wells are completed in the unconfined alluvium and terrace deposits, with static water levels around 10 ft bgs. Groundwater gradient information is not available for the shallow aquifer associated with these offsite monitoring wells. Hydraulic conductivity is low in the Austin Chalk, which is very limited as an aquifer. The Woodbine Aquifer and Twin Mountains Formation of the Trinity Aquifer are also present below the site based on area well drilling logs (TCEQ 2016).

Underlying the Austin Chalk is the Eagle Ford Group. The 200 to 300 ft thick Eagle Ford Group unconformably overlies the Woodbine Aquifer and acts as a confining unit. The Woodbine Aquifer is categorized by the Texas Water Development Board as a minor aquifer consisting of sandstone interbedded with shale and clay that form 3 distinct water-bearing zones. The Woodbine Aquifer occurs from approximately 700 to 1,100 ft bgs and reaches 600 to 700 ft in thickness in subsurface areas, with freshwater saturated thickness averages of about 160 ft Based on area well drilling logs, water levels in the Woodbine Aquifer in the vicinity of the site range from 100 to 230 ft bgs, with total depths of approximately 853 to 1,100 ft bgs. Groundwater gradient in the Woodbine Aquifer is generally to the east-southeast (TCEQ 2016).

The Washita Group underlies the Woodbine and overlies the Fredericksburg Group. The 2 groups are generally considered a confining unit above the Trinity Aquifer and yield only small amounts of water. The 2 water-bearing formations of the Trinity Group in the vicinity of the site are the Paluxy and Twin Mountains Formations, separated by the Glen Rose Formation. The Glen Rose Formation only yields small amounts of water to localized areas (TCEQ 2016).

The top of the Paluxy Formation occurs from approximately 1,700 to 2,000 ft bgs, with a maximum thickness of approximately 400 ft. The Paluxy Formation yields small to moderate quantities of fresh to slightly saline water to municipal, industrial, domestic, and livestock wells. The Twin Mountains Formation has a maximum thickness of up to 1,000 ft, and the top of the formation occurs from approximately 2,300 to 2,800 ft bgs. It is the primary Cretaceous-age water-bearing formation in the region and yields moderate to large quantities of fresh to slightly saline water to municipal and industrial wells. Groundwater gradient in both aquifers is generally to the east. The Trinity is the largest and most prolific aquifer in the region; however,

the aquifer has been overdeveloped, resulting in significant water level declines across the region (TCEQ 2016).

The unconfined alluvium, Woodbine Aquifer, and Paluxy Formation of the Trinity Aquifer are unlikely to have interconnectivity in this area as the 3 aquifers are separated from one another by confining units of the Eagle Ford and Washita/Fredericksburg Groups, as discussed earlier in this section. Interconnectivity between the Paluxy and Twin Mountains Formations of the Trinity Aquifer is also unlikely in the vicinity of the site as they are separated by the Glen Rose Formation, which yields small amounts of water. Additionally, the upper part of the Twin Mountains Formation is mostly claystone, and few wells are developed in the upper part of the formation. The Glen Rose Formation pinches out towards the north and is absent in northern Texas counties where the Paluxy and Twin Mountains Formations coalesce into the Antlers Formation (TCEQ 2016).

The Trinity Aquifer supplies wells for public supply, industrial, irrigation, domestic, and livestock use. Irrigation use constitutes a small portion of overall pumpage in the Paluxy and Twin Mountains Formations and is generally limited to irrigation of golf courses and lawns. Irrigation of crops from the Twin Mountains Formation is confined to the outcrop areas located in Hood, Parker, and Wise Counties. Approximately 55% of total groundwater use in the Twin Mountains Formation is for municipal and industrial purposes. Municipal and domestic use of the Paluxy Formation accounted for approximately 50 and 24% of total groundwater pumpage, respectively. There is no evidence at this time that groundwater is used for irrigation of food or forage crops of 5 or more acres, for commercial livestock watering, as an ingredient in commercial food preparation, for commercial aquaculture, or for major or designated recreation in close proximity to the site (TCEQ 2016).

3.4.2 Depth to Groundwater

As noted on Table 3-2, during the March 2020 groundwater gauging event, depth to groundwater ranged from 3.37 ft below top of casing (btoc) in MW-01 to 12.22 ft btoc in water well/cistern WW-02, with monitoring well MW-08 being dry. For the Austin Chalk monitoring wells, depth to groundwater ranged from 5.02 ft btoc in ACMW-02 to 7.61 ft btoc in ACMW-04, with ACMW-03 being dry.

During the RI, 4 sets of collocated of wells (MW-01/ACMW-01, MW-09/ACMW-02, MW-08/ACMW-03, and MW-10/ACMW-04) were installed (Figure 2-5). The shallow monitoring wells were installed in the perched groundwater zone above the Austin Chalk, with the deeper monitoring wells being installed with surface casing and completed into the upper portion of the Austin Chalk. One of the well clusters (MW-08/ACMW-03) did not make water. As illustrated on Figure 3-2, in the vicinity of MW-01/ACMW-01, there was a downward vertical groundwater gradient in March 2020. However, in the case of MW-09/ACMW-02 and MW-10/ACMW-04, there was an upward vertical groundwater gradient in March 2020. This indicates that the perched groundwater above the Austin Chalk is in communication with the upper portion of the Austin Chalk, most likely by way of localized fractures, joints, and/or bedding planes. However, as discussed further in later sections of this document, the highest mass of groundwater impact occurs in the perched groundwater zone above the Austin Chalk.

3.4.3 Hydraulic Gradients

Groundwater contours illustrating the hydraulic gradient across the site were developed based on a groundwater gauging event that occurred in March 2020. As indicated on Figure 3-7, the primary groundwater flow paths during the March 2020 groundwater gauging event were to the southwest and south. These flow paths appear to be controlled by the local topography, with the site sitting adjacent to areas topographically higher to the north and northwest, and lower elevation bottomlands south and southeast of the site associated with Stream 5A2 and the unnamed stream (Figure 3-5). Stream 5A2 is perennial and may be locally contributing surface water to the perched groundwater zone, based on the groundwater elevation associated with MW-02. This condition could contribute to the southwesterly flow component associated with the perched groundwater zone. The local gradient averaged approximately 0.006 ft per ft in March 2020.

3.4.4 Groundwater Use

Based on information provided in the PA (TCEQ 2016), 1 domestic well, 3 public water supply (PWS) wells, 2 stock wells, 8 irrigation wells, and 7 industrial wells lie within 4 miles of the site. The only well located within 1 mile of the site is an irrigation well. Additional irrigation wells are located within 2 miles to the northeast and southwest (3 wells), within 2 miles to the east and west (3 wells), and within 4 miles northeast. The nearest PWS wells are located within 2, 3, and 4 miles west and southwest of the site and are screened in the Woodbine Aquifer. The closest domestic well is located within 3 miles east of the site, and 2 stock wells are located within 3 and 4 miles east and southeast of the site, all screened within shallow alluvium. Industrial wells are situated within 2 miles east-northeast (2 wells) and 4 miles north (5 wells) of the site. Irrigation and industrial wells are reportedly screened in the shallow alluvium and Woodbine Aquifer. Figure 3-8 was adapted from the TCEQ PA (TCEQ 2015) and illustrates the locations of these wells.

Water analytical results were not available for the domestic and PWS wells identified in the search. The TCEQ Texas Drinking Water Watch (TXDWW) website lists 1 of the PWS facilities (Community Water Service Grand Prairie) as buying their water from the City of Grand Prairie, who buys from the Cities of Fort Worth and Midlothian, and the Dallas Water Utility. These are all surface water sources of drinking water located west or north of the site. The other PWS facilities are not listed on the TXDWW website. Installation dates of the domestic and PWS wells are old, ranging from the 1940s to the 1970s, and it is unknown if these wells are still in use. The site is not located within a wellhead protection area (TCEQ 2016).

3.5 METEOROLOGY

The following meteorological data for Dallas, Texas, were adapted from the following website: https://www.bestplaces.net/climate/city/texas/dallas

Dallas, Texas, receives 39 in. of rain and 1 in. of snow, on average, per year. On average, there are 234 sunny days per year. Dallas, Texas gets some kind of precipitation, on average, 78 days per year. Precipitation is rain, snow, sleet, or hail that falls to the ground.

The July high temperature is around 95 degrees Fahrenheit (ºF) , and the January low temperature is 36 ºF. April, May, and October are the most pleasant months in Dallas, Texas, while August and July are the least comfortable months.

3.6 DEMOGRAPHY AND LAND USE/REUSE

This section provides a description of the demographics and land use/reuse in the vicinity of the site.

3.6.1 Demographics

The following demographics data was adapted from the following website: https://www.census.gov/quickfacts/fact/table/dallascitytexas,US/PST045219

The site is located in the south portion of Dallas, Texas in Dallas County, Texas. According to census records, the estimated total population of Dallas was 1,343,573 in 2019. Among the Dallas population, a total of 62.5% identified themselves as White, 24.3% identified themselves as Black or African-American, 0.3% identified themselves as American Indian and Alaskan Native alone, 3.4% identified themselves as Asian alone, 0.0% identified themselves as Native Hawaiian and other Pacific Native, and 41.7% identified themselves as Hispanic or Latino. Of local population, 2.5% of people also identified themselves as 2 or more races.

According to the census data, the median household income in Dallas, Texas, was $50,100 from 2014 through 2018. This source estimates 20.5% of the population were living below the poverty level in Dallas, Texas.

3.6.2 Land Use/Reuse

Superfund remedy selection determines the extent to which hazardous constituents remain at the site and therefore affect subsequent available land and groundwater uses. Future land use assumptions allow the cleanup alternatives evaluation to be focused on developing practicable and cost effective remedial alternatives. Land uses that will be available following completion of site cleanup are determined during the remedy selection process. During this process, the goal of realizing reasonably anticipated future land uses is considered along with other factors. Any combination of unrestricted uses, restricted uses, or use for long-term waste management may result.

3.6.2.1 Current Land Use

Zoning information for the site and the surrounding properties was obtained at the following website: https://gis.dallascityhall.com/zoningweb/. Based on this source, all but the southwest corner of the property is currently zoned Commercial Service District (CS), with the surrounding properties being zoned Residential Single Family 7,500 Square Feet District (R7.5[A]). The City of Dallas, Texas, zoning code identifies the CS primary use as, *"commercial and business service, supporting retail and personal service and office."* The current land use of the parcel making up the site matches the existing zoning.

3.6.2.2 Reasonably Anticipated Future Land Uses

Based on the current site status, future land uses and reuse considerations are currently unknown. However, the site is located within/close to a floodplain which may limit future land use considerations.

4. ANALYTICAL DATA SUMMARY

This section contains a summary and evaluation of the analytical data collected during the historic assessments and RI field events.

4.1 HISTORIC DATA SUMMARY

A series of historical field investigations by TCEQ and EPA occurred from 2010 through 2016. The soil data collected by EPA as part of the 2016 RA (Weston 2016) and soil, sediment, and surface water data collected by TCEQ for the SI Report (TCEQ 2017) were carried forward for further evaluation under the RI and risk assessments. These historical data were summarized in Section 2, so this information was not repeated in this section for brevity.

4.2 REMEDIAL INVESTIGATION REPORT DATASET SUMMARY

The data collected during the RI field events were used in the evaluations within this report and considered suitable for making remedial decisions. The RI data were summarized in Section 2, so this information was not repeated in this section for brevity.

4.3 REMEDIAL INVESTIGATION REPORT DATA USABILITY

The RI dataset was evaluated in context with the project-specific DQOs in the SAP (EA 2019a) and DESR. Data were evaluated for acceptable quality and quantity based on the critical indicator parameters, represented by precision, accuracy, completeness, comparability, representativeness, and sensitivity. A summary of this evaluation is presented below.

The DQO process is a series of planning steps designed to ensure that the type, quantity, and quality of environmental data used in decision-making are appropriate for the intended application. The data must be sufficient enough to answer the principal study goals from the DQO process as follows:

- ***Confirm location of sources for contamination.***
- ***Expand analyte list to include organic compounds for a limited number of collected samples to ensure other COPCs do not exist for the site.***
- ***Evaluate a limited number of collected samples for VOCs, SVOCs, PCBs, and PFAS to determine if these COPCs are present at the site.***
- ***Determine the nature and extent of contamination in soil, groundwater, surface water, and sediment, and if necessary, in the future based on the Phase 1 finding, collect biota samples for laboratory analyses. If necessary, also conduct soil gas and indoor air investigations if VOCs are identified as COPCs.***
- ***Evaluate the groundwater to surface water pathway to determine if groundwater impacts surface water (e.g., complete, or potentially complete pathway).***

- ***Characterize and delineate groundwater discharge to surface water to determine if COPCs present unacceptable Human Health/Ecological risk requiring evaluation of options and technologies to support future actions.***

- ***Determine whether COPCs present unacceptable Human Health/Ecological risk requiring the evaluation of options and technologies to support future actions.***

- ***Evaluate the hydraulic gradient of the shallow groundwater bearing unit(s) in the site vicinity.***

- ***Evaluate and delineate the small, interconnected streams and ponds of the surface water pathway located east of the site.***

It is important that the data collected during the field investigation is suitable and sufficient to evaluate the following RI components: source identification, nature and extent determination, migration pathway evaluation, background contribution, and risk characterization.

An evaluation of spatial distribution and sample density is an inexact science that is often subject to opinion and conjecture. Datasets inherently have some level of uncertainty with regards to the representativeness of the characterization. Although the level of uncertainty varies from area to area, the acceptable level of uncertainty is often individualistic and subject to interpretation. Essentially, there is a delicate balance between expending additional effort to characterize an area and the necessity for additional data to reduce uncertainty in the dataset.

To evaluate the robustness of the dataset, 2 criteria were utilized in a semi-quantitative weight-of-evidence evaluation:

- *Is sampling sufficient to: (1) determine the nature and extent of contamination and (2) calculate an exposure point concentration for risk assessment?* Statistical approaches were consistent with EPA guidance, including use of the EPA ProUCL program version 5.0.02 (EPA 2016). This guidance recommends that a minimum of 8 to 10 samples are necessary for a dataset. The datasets were sufficient to meet this criterion.

- *Is the spatial distribution and sample density adequate to evaluate the nature and extent of contamination and complete the migration pathway analyses?* The evaluation also requires some professional judgment and is largely a weight-of-evidence evaluation. To evaluate these criteria, the detections of COPCs were plotted on figures and evaluated for spatial distribution and sample density. Based on this evaluation using the figures in Section 5, the spatial distribution and sample density are considered sufficient to answer the principal study goals/questions.

Although there is some inherent uncertainty associated with sample collection and the representativeness of the site characterization, the data are considered sufficient for: source identification, nature and extent determination, migration pathway evaluation, background contribution, and risk characterization.

5. REMEDIAL INVESTIGATION RESULTS

Previous sections of this RI Report provide the foundation for answering the principal study questions presented in Section 4.3, and, as applicable, addressed in this section. After these principal study questions were addressed, the CSMs are presented to provide a holistic presentation of the impacts and to form the basis for the risk assessments. The Human Health CSM and Ecological CSM are illustrated on Figures 5-1 and 5-2, respectively.

5.1 BASIS OF UNDERSTANDING

Sections 1 through 4 provided a summary of the site information and data, which fulfilled the first of 4 elements of an RI Report (Section 1.1). The remaining elements are: (1) identify potential source areas, (2) define the nature and extent of contamination, and (3) evaluate contaminant migration pathways. The source identification, nature and extent discussion, and migration pathway analyses will be supported by the comparison of data to SLs. The following sections to provide a basis of understanding of the sourcing, distribution, and migration of contaminants at the site.

5.1.1 Comparison Criteria

Although the current use of the site is commercial/industrial, some portions of the site are located near areas that are undeveloped or used for residences. Therefore, to provide a consistent basis of comparison across exposure areas, the most conservative SLs for the Human Health and ecological receptors identified in the risk assessments were included in the nature and extent discussion, as well as comparisons to industrial soil SLs, and site-specific background SLs developed from background investigation data collected during the RI. The following paragraphs describe screening criteria used for this evaluation, and Sections 5.3 through 5.6 also provide a summary of the distribution of chemicals and metals that exceeded all of the Human Health and most of the ecological SL criteria. The classes of COPCs that displayed SL exceedances at the site include metals, hexavalent chromium, and PFAS. Detections of COPCs identified in the risk assessments that exceeded 1 or more SLs are illustrated in Figures 5-3 through 5-49.

It is noted that the nature and extent discussions presented in Sections 5.3 through 5.6 are based on actual laboratory detections, and do not consider laboratory quantitation limits that were higher than screening criteria used to initially screen this data. This condition has been further evaluated and addressed during preparation of the HHRA (EA 2020b) and ERA (EA 2020a).

Appendix G contains an electronic copy of the laboratory database (on compact disc). This database was developed as part of the RI and is inclusive of analytical data results used for this RI Report.

5.1.2 Source

Source material is a media that includes or contains hazardous substances, pollutants, or contaminants that act as a reservoir for migration to other media or for direct exposure (EPA

1991). EPA identifies source material as either a principal threat waste or a low-level threat waste.

- **Principal Threat Wastes** – Source materials that are considered highly toxic or highly mobile and that generally cannot be reliably contained or would present a significant risk to Human Health or the environment if exposure were to occur.

- **Low-level Threat Wastes** – Source materials that exhibit low toxicity and low mobility and can be reliably contained or would present only a low risk to Human Health or the environment if exposure were to occur.

Material that was considered source material was identified as either a principal or low-level threat waste in the sections below.

5.1.3 Nature and Extent of Contamination

An analysis of the data is performed to describe the nature and extent of contamination to soil, sediment, surface water, and groundwater (EPA 1989, 1997). Chemical concentrations are incorporated with physical characteristics, historical information regarding site activities, and other evidence to evaluate the nature and magnitude of contamination. Similar evidence is used to delineate the extent of contamination both horizontally and vertically. Spatial and temporal trends were evaluated as they may be important in the migration pathway analysis.

5.1.4 Migration Pathways

The nature and extent of contamination is combined with source identification and physical characteristic information to evaluate migration pathways. The following migration pathways are present at the site:

- Leaching to Groundwater
- Groundwater Transport
- Overland Flow
- Air Particulate Transport.

5.2 POTENTIAL SOURCE AREAS

The following sources have been identified for the site: (1) contaminated soil currently located underneath and surrounding the facility buildings and (2) underground sumps located inside the main facility building. Wastes containerized within the buildings served as previous sources but have been removed. Based on the findings of the RI, elevated levels of impacted surface and subsurface soil were detected around all four sides of the main building. In addition, the subsurface sumps located inside were historically used for electroplating operations for approximately 90 years until 2015. Given their age, the integrity of these sumps is questionable. As also determined during the RI, some of the highest concentrations of site-related COPCs are located just to the east and south of the HWTB, which is situated in the southeast portion of the

Process Area. Within this area, there is also an area where sandblasting waste material was discarded and accumulated on the ground surface to the southeast of the HWTB. This area of highly impacted soil is also situated on adjacent portions of the Open Area.

5.3 IMPACTS IN SOIL EXPOSURE AREAS

The onsite soil exposure areas have been designated as the Process Area and Open Area, and include the site, as well as the adjacent property to the south where the baseball field is located (Figure 2-1). The initial screening discussed in this section will compare laboratory results to SLs consisting of Residential Soil RSLs and Industrial Soil RSLs (EPA 2020), the most conservative Ecological SLs, and site-specific background concentrations developed as part of the RI. COPCs for soil include TAL metals, hexavalent chromium, and PFAS. Detailed nature and extent discussions are focused on the individual COPCs identified in the risk assessments, because these COPCs are considered the primary risk drivers for the site.

Summaries of COPC detections and SL exceedances for surface soil (0.0-2.0 ft bgs) Table 5-1 for the Process Area and in Table 5-2 for the Open Area. Summaries of COPC detections and SL exceedances for subsurface soil (greater than 2.0 ft bgs) are presented in Table 5-8 for the Developed Area and in Table 5-9 for the Open Area.

5.3.1 Surface Soil

Table 5-1 provides a summary of soil results/exceedances for the Process Area, which were screened against SLs. As indicated on Table 5-1, antimony, arsenic, cadmium, lead, manganese, mercury, nickel, thallium, and hexavalent chromium exceeded Residential Soil RSLs in the 0.0 to 2.0 ft interval, which is designated as surface soil. Table 5-2 provides a summary of soil results/exceedances for the Open Area. As indicated on Table 5-2, arsenic, lead, mercury, and hexavalent chromium exceeded Residential Soil RSLs in the 0.0 to 2.0 ft interval, which is designated as surface soil. These exceedances were carried forward for further evaluation under the HHRA, which identified hexavalent chromium, lead, mercury, and arsenic as Human Health COPCs for surface soil at the site.

In the case of Ecological SLs, 19 TAL metals and hexavalent chromium exceeded these screening criteria in the Process Area surface soil, and 18 TAL Metals and hexavalent chromium exceeded these screening criteria in the Open Area surface soil. Detections of these metals were carried forward for further evaluation under the ERA, which identified antimony, cadmium, chromium, hexavalent chromium, copper, lead, mercury, nickel and zinc, and as Ecological COPCs for the Process Area surface soil, and chromium, hexavalent chromium, and mercury as Ecological COPCs for the Open Area surface soil.

Arsenic, chromium, hexavalent chromium, lead, and mercury have been used for nature and extent discussions presented below. These represent all of the Human Health COPCs for surface soil, as well as those that are Ecological COPCs for both the Process Area and Open Area surface soil. In the case of the remaining Ecological COPCs (antimony, cadmium, copper, nickel, and zinc), they have been identified for the Process Area surface soil and are collocated with the previously identified COPCs used for the below nature and extent discussions.

5.3.1.1 Hexavalent Chromium

Both the HHRA and ERA identified hexavalent chromium as a site COPC. Detections of this metal were compared to its Residential Soil RSL (0.3 mg/kg), its Industrial Soil RSL (6.3 mg/kg), the Ecological SL selected for the ERA (0.34 mg/kg), and the calculated site-specific background concentration for surface soil (1.672 mg/kg). Table 5-3 provides a summary of surface soil detections and SL exceedances for this metal.

Process Area

The following provides a description of the distribution of hexavalent chromium exceedances for the Process Area:

1. Figure 5-3 illustrates the surface soil sample locations in the Process Area that displayed hexavalent chromium detections exceeding the Residential Soil RSL of 0.3 mg/kg. As indicated on this figure, there were widespread exceedances of the Residential Soil RSL for hexavalent chromium.

2. Figure 5-4 illustrates surface soil sample locations in the Process Area that displayed hexavalent chromium detections exceeding the Industrial RSL of 6.3 mg/kg. As indicated on this figure, these exceedances occurred around the footprint of the main building, and to the east and south of the HWTB.

3. Figure 5-5 illustrates the surface soil sample locations in the Process Area that displayed hexavalent chromium detections exceeding the Ecological Benchmark of 0.34 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

4. Figure 5-6 illustrates sample locations that exceeded the calculated site-specific background concentration of 1.672 mg/kg for hexavalent chromium. As indicated on this figure, there were widespread detections of hexavalent chromium in the Process Area that exceeded background.

Open Area

The following provides a description of the distribution of hexavalent chromium exceedances for the Open Area:

1. Figure 5-3 illustrates the surface soil sample locations in the Open Area that displayed hexavalent chromium detections exceeding the Residential Soil RSL of 0.3 mg/kg. As indicated on this figure, there were several areas that had scattered detections exceeding the Residential Soil RSL for hexavalent chromium. These areas primarily include the portion of the Open Area adjacent to the southwest portion of the Process Area, and the south, southeast and east portions of the Open Area.

2. Figure 5-4 illustrates surface soil sample locations in the Open Area that displayed hexavalent chromium detections exceeding the Industrial RSL of 6.3 mg/kg. As indicated on this figure, there were 10 sample locations within the Open Area that displayed detections of hexavalent chromium that exceeded the Industrial RSL for this metal. These exceedances occurred in close proximity to the south and east boundaries with the Process Area, and on the southeast portion of the Open Area.

3. Figure 5-5 illustrates the surface soil sample locations in the Open Area that displayed hexavalent chromium detections exceeding the Ecological Benchmark of 0.34 mg/kg. As indicated on this figure, there were several areas that had scattered detections exceeding this screening criteria. These areas primarily include the portion of the Open Area adjacent to the southwest and north portions of the Process Area, and the south, southeast, and east portions of the Open Area.

4. Figure 5-6 illustrates sample locations that exceeded the calculated site-specific background concentration of 1.672 mg/kg for hexavalent chromium in surface soil. As indicated on this figure, there were several areas that had scattered detections exceeding background. These areas primarily include the portion of the Open Area adjacent to the southwest south and east portions of the Process Area, and the southeast and east portions of the Open Area.

Summary

The following provides a summary of the distribution of hexavalent chromium exceedances for surface soil:

1. Figure 5-7 is an isoconcentration map that illustrates the distribution of hexavalent chromium exceedances in surface soil. The green area corresponds to exceedances greater than the calculated site-specific concentration of 1.67 mg/kg up to the Industrial RSL of 6.3 mg/kg, the blue area corresponds to exceedances greater than the Industrial RSL of 6.3 mg/kg and less than 100 mg/kg, the yellow area corresponds to greater than 100 mg/kg and less than 1,000 mg/kg, and the red area corresponds to greater than 1,000 mg/kg. As illustrated in this figure, the highest concentrations of hexavalent chromium in surface soil (exceeding 100 mg/kg) occur around the footprint of the main building, with isoconcentrations greater than 1,000 mg/kg occurring in an area situated in the southeast portion of the Process Area to the southeast and south of the HWTB. Surface soil samples collected from this latter area displayed hexavalent chromium detections that ranged from 1,010 mg/kg in the 0 to 3 in. interval of sample location E6 to 5,620 mg/kg in the 0 to 3 in. interval of sample location G7. Sample location JSB-02, which is located in close proximity to sample locations E6 and J7, also displayed a hexavalent chromium detection of 1,130 mg/kg at a depth interval of 0.0 to 0.5 ft bgs.

2. As also indicated on Figure 5-7, the most highly impacted soil is restricted primarily to the Process Area, with several lobes of impacted soil exceeding the Industrial RSL of 6.3 mg/kg extending into the Open Area, and the primary lobe trending to the southeast through the southeast portion of the Open Area. This distribution is attributed to

overland flow/surface water transport of product/waste from the Process Area and possibly impacted surface soil during large rain events. The highest hexavalent chromium detection in the Open Area, 247 mg/kg, was detected at sample location F1, situated to the north of the main building. The next highest concentration, 18.3 J mg/kg, was collected at sample location DSB-5-0.5-2.0, which is located to the southeast of the area of highest surface soil impact associated with the Process Area. Also indicated on this figure, the highest concentrations of hexavalent chromium in surface soil occur within the perimeter of the EPA security fence.

3. As noted on Figure 5-3, 5 of the offsite sample locations used for the background surface soil investigation displayed hexavalent chromium detections that exceeded the Residential Soil RSL of 0.3 mg/kg, with these detections ranging from 0.38 J mg/kg (BSB-3-0.5-2.0) to 2.4 mg/kg (BSB-8-0.0-0.5). In addition, the calculated site-specific background concentration for hexavalent chromium, 1.672 mg/kg, is higher than the Residential Soil RSL of 0.3 mg/kg. This supports that a portion of the lower detections of hexavalent chromium that exceeded the Residential Soil RSL of 0.3 mg/kg are due to background conditions and are not site-related.

5.3.1.2 Lead

Both the HHRA and ERA identified lead as a site COPC. Detections of this metal were compared to its Residential Soil RSL (200 mg/kg), the Industrial Soil RSL (400 mg/kg), the Ecological Benchmark selected for the ERA (11 mg/kg), and the calculated site-specific background concentration for surface soil (77.3 mg/kg). Table 5-4 provides a summary of surface soil detections and SL exceedances for this metal.

Process Area

The following provides a description of the distribution of lead exceedances for the Process Area:

1. Figure 5-8 illustrates the surface soil sample locations in the Process Area that displayed lead detections exceeding the Residential Soil RSL of 400 mg/kg. As indicated on this figure, there were widespread exceedances of the Residential Soil RSL for lead, with most of them occurring around the footprint of the main building and the area surrounding HWTB.

2. Figure 5-9 illustrates the surface soil sample locations in the Process Area that displayed lead detections exceeding the Industrial Soil RSL of 800 mg/kg. As indicated on this figure, most exceedances of the Industrial Soil RSL for lead occur around the footprint of the main building and the area surrounding HWTB.

3. Figure 5-10 illustrates the surface soil sample locations in the Process Area that displayed lead detections exceeding the Ecological Benchmark of 11 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

4. Figure 5-11 illustrates sample locations that exceeded the calculated site-specific background concentration of 77.3 mg/kg for lead. As indicated on this figure, there were widespread exceedances of the site-specific background concentration for lead, with most of them occurring around the footprint of the main building and the area surrounding HWTB, as well as within the south portion of the Process Area.

Open Area

The following provides a description of the distribution of lead exceedances for the Open Area:

1. Figure 5-8 illustrates the surface soil sample locations in the Open Area that displayed lead detections exceeding the Residential Soil RSL of 400 mg/kg. As indicated on this figure, there was 1 surface soil sample location (H4) that exceeded the Residential Soil RSL for lead in the Open Area at a concentration of 797 mg/kg.

2. Figure 5-9 illustrates the surface soil sample locations in the Open Area that displayed lead detections exceeding the Industrial Soil RSL of 800 mg/kg. As indicated on this figure, there were no surface soil sample locations that exceeded the Industrial Soil RSL for lead in the Open Area.

3. Figure 5-10 illustrates the surface soil sample locations in the Open Area that displayed lead detections exceeding the Ecological Benchmark of 11 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

4. Figure 5-11 illustrates sample locations that exceeded the calculated site-specific background concentration of 77.3 mg/kg for lead in surface soil. As indicated on this figure, there were several areas that had scattered detections exceeding this screening criteria. These areas primarily include the portion of the Open Area adjacent to the south and southwest portion of the Process Area, and the southeast and east portions of the Open Area.

Summary

The following provides a summary of the distribution of lead exceedances for surface soil:

1. Figure 5-12 is an isoconcentration map that illustrates the distribution of lead exceedances in surface soil. The green area corresponds with exceedances greater than the calculated site specific background concentration of 77.3 mg/kg and less than the Residential Soil RSL of 400 mg/kg, the yellow area corresponds to exceedances greater than the Residential Soil RSL of 400 mg.kg and less than the Industrial RSL of 800 mg/kg, and the red area corresponds to exceedances greater than the Industrial Soil RSL of 800 mg/kg. As illustrated in this figure, the highest concentrations of lead in surface soil (exceeding 800 mg/kg) occur around the footprint of the main building, with concentrations greater than 3,000 mg/kg occurring in an area situated in the southeast portion of the Process Area to the east and south of the HWTB. Surface soil samples collected from this latter area displayed lead detections that ranged from 3,010 mg/kg at

surface soil sample SO-08 to 19,300 JK mg/kg in the 0 to 3 in. interval of surface soil sample location E6.

2. As also indicated on Figure 5-12, the most highly impacted soil is restricted primarily to the Process Area, with several lobes of surface soil exceeding the calculated site-specific background concentration of 77.3 mg/kg for lead extending into the Open Area, and the primary lobe trending to the southeast through the southeast portion of the Open Area. This distribution is attributed to overland flow/surface water transport of product/waste from the Process Area and possibly impacted surface soil during large rain events. An additional area that exceeds background is located on the east portion of the Open Area. The highest lead detection in the Open Area, 797 mg/kg, was detected at sample location H4, situated to the east of the main building. The next highest concentration, 339 mg/kg, was collected at sample location I10, which is located to the southeast of the area of highest surface soil impact associated with the Process Area. Also indicated on this figure, the highest concentrations of lead in surface soil occur within the perimeter of the EPA security fence.

3. As noted on Figure 5-10, the 8 offsite sample locations used for the background surface soil investigation displayed lead detections that exceeded the Ecological Benchmark of 11 mg/kg, with these detections ranging from 12.1 mg/kg (BSB-3-0.5-2.0) to 77.3 mg/kg (BSB-1-0.0-0.5). This supports that detections of lead that exceed the Ecological Benchmark of 11 mg/kg but are below the site-specific calculated background of 77.3 mg/kg are due to background conditions and not site-related.

5.3.1.3 Mercury

Both the HHRA and ERA identified mercury as a site COPC. Detections of this metal were compared to its Residential Soil RSL (23 mg/kg) for mercuric chloride and other mercury salts, the Industrial Soil RSL (350 mg/kg) for mercuric chloride, and the Ecological Benchmark selected for the ERA (0.1 mg/kg). A calculated site-specific background concentration for surface soil could not be developed due to the limited detections of this metal in background surface soil samples. Table 5-5 provides a summary of surface soil detections and SL exceedances for this metal.

<u>Process Area</u>

The following provides a description of the distribution of mercury exceedances for the Process Area:

1. Figure 5-13 illustrates the surface soil sample locations in the Process Area that displayed mercury detections exceeding the Residential Soil RSL of 23 mg/kg. As indicated on this figure, exceedances of the Residential Soil RSL for mercury occurred mostly around the footprint of the main building and the area surrounding HWTB.

2. Figure 5-14 illustrates the surface soil sample locations in the Process Area that displayed mercury detections exceeding the Industrial Soil RSL of 350 mg/kg. As indicated on this

figure, there were no detections of mercury that exceeded the Industrial Soil RSL for this metal.

3. Figure 5-15 illustrates the surface soil sample locations in the Process Area that displayed mercury detections exceeding the Ecological Benchmark of 0.1 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

Open Area

The following provides a description of the distribution of mercury exceedances for the Open Area:

1. Figure 5-13 illustrates the surface soil sample locations in the Open Area that displayed mercury detections exceeding the Residential Soil RSL of 23 mg/kg. As indicated on this figure, there was 5 surface soil sample locations that exceeded the Residential Soil RSL for mercury in the Open Area. Two of these locations (E1 and F1) are located immediately north of the Process Area boundary, 2 locations (H4 and H5) are located to the east of the Process Area boundary, and 1 location (I10) is located more distally to the southeast of the boundary with the Process Area.

2. Figure 5-14 illustrates the surface soil sample locations in the Open Area that displayed mercury detections exceeding the Industrial Soil RSL of 350 mg/kg. As indicated on this figure, there were no detections of mercury that exceeded the Industrial Soil RSL for this metal.

3. Figure 5-15 illustrates the surface soil sample locations in the Process Area that displayed mercury detections exceeding the Ecological Benchmark of 0.1 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

Summary

The following provides a summary of the distribution of mercury exceedances for surface soil:

1. Figure 5-16 is an isoconcentration map that illustrates the distribution of mercury exceedances in surface soil. The green area corresponds with exceedances greater than the Ecological Benchmark of 0.1 mg/kg and less than the Residential Soil RSL of 23 mg/kg, while the red area corresponds to exceedances greater than the Residential Soil RSL of 23 mg/kg. As illustrated in this figure, the highest concentrations of mercury in surface soil (exceeding 23 mg/kg) occur north, east, and southeast of the footprint of the main building, and west, south, and southeast of the HWTB, with the highest concentration (144 mg/kg) occurring at soil sample location JSB-04, located immediately north of the west portion of the main building.

2. As also indicated on Figure 5-16, the most highly impacted soil is restricted primarily to the Process Area, with several lobes of surface soil exceeding the Residential Soil RSL of 23 mg/kg extending into the Open Area, and the primary lobe trending to the southeast through the southeast portion of the Open Area, and smaller lobes north and east/southwest of the main building. This distribution is attributed to overland flow/surface water transport of product/waste from the Process Area and possibly impacted surface soil during large rain events. Also indicated on this figure, the highest concentrations of mercury in surface soil occur within the perimeter of the EPA security fence.

3. As previously stated, a calculated site-specific background concentration for mercury in surface soil could not be developed due to the limited detections of this metal in background surface soil samples. As such, detections at the site are considered site-related, and not related to naturally occurring background conditions.

5.3.1.4 Arsenic

The HHRA identified arsenic as a site COPC. Detections of this metal were compared to its Residential Soil RSL (0.68 mg/kg), the Industrial Soil RSL (3 mg/kg), and the calculated site-specific background concentration for surface soil (6.305 mg/kg). Table 5-6 provides a summary of surface soil detections and SL exceedances for this metal.

Process Area

The following provides a description of the distribution of arsenic exceedances for the Process Area:

1. Figure 5-17 illustrates the surface soil sample locations in the Process Area that displayed arsenic detections exceeding the Residential Soil RSL of 0.68 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

2. Figure 5-18 illustrates the surface soil sample locations in the Process Area that displayed arsenic detections exceeding the Industrial Soil RSL of 3 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

3. Figure 5-19 illustrates the surface soil sample locations in the Process Area that displayed arsenic detections exceeding the calculated site-specific background concentration for surface soil of 6.305 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

Open Area

The following provides a description of the distribution of arsenic exceedances for the Open Area:

1. Figure 5-17 illustrates the surface soil sample locations in the Open Area that displayed arsenic detections exceeding the Residential Soil RSL of 0.68 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

2. Figure 5-18 illustrates the surface soil sample locations in the Open Area that displayed arsenic detections exceeding the Industrial Soil RSL of 3 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

3. Figure 5-19 illustrates the surface soil sample locations in the Open Area that displayed arsenic detections exceeding the calculated site-specific background concentration for surface soil of 6.305 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

Summary

The following provides a summary of the distribution of arsenic exceedances for surface soil:

1. Figure 5-20 is an isoconcentration map that illustrates the distribution of arsenic exceedances in surface soil. The green area corresponds with exceedances greater than calculated site-specific background concentration of 6.305 mg/kg., as well as the Residential Soil RSL of 0.68 mg/kg, and the Industrial Soil RSL of 3 mg/kg. As illustrated in this figure, the highest concentrations of arsenic in surface soil (exceeding the calculated, site-specific background value of 6.305 mg/kg) are widespread across the site, with the highest concentrations (19.1 mg/kg and 18.5 mg/kg) occurring at offsite soil sample location SS-08, which is located on the baseball field south of the site. The highest onsite detection (14.9 mg/kg) occurred at surface soil sample C2, which is located in the northwest portion of the Process Area. Also indicated on this figure, the majority of the area with arsenic exceeding the background concentration for surface soil occur within the perimeter of the EPA security fence.

2. As noted on Figures 5-17 and 5-18, the offsite sample locations used for the background surface soil investigation displayed arsenic detections that exceeded both the Residential Soil RSL of 0.68 mg/kg, as well as Industrial Soil RSL of 3.0 mg/kg. These detections ranged from 2.7 mg/kg (BSB-3-0.5-2.0) to 6.3 mg/kg (BSB-2-0.5-2.0). This supports that naturally-occurring arsenic is higher than the Residential Soil RSL and Industrial Soil RSL for this metal.

5.3.1.5 Chromium

The ERA identified chromium as a site COPC. Detections of this metal were compared to its Ecological Benchmark selected for the ERA (23 mg/kg) and the calculated site-specific background concentration for surface soil (10.41 mg/kg). Table 5-7 provides a summary of surface soil detections and SL exceedances for this metal.

Process Area

The following provides a description of the distribution of chromium exceedances for the Process Area:

1. Figure 5-21 illustrates the surface soil sample locations in the Process Area that displayed chromium detections exceeding the Ecological Benchmark of 23 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

2. Figure 5-22 illustrates the surface soil sample locations in the Process Area that displayed chromium detections exceeding the calculated site-specific background concentration for surface soil of 10.41 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

Open Area

The following provides a description of the distribution of chromium exceedances for the Open Area:

1. Figure 5-21 illustrates the surface soil sample locations in the Open Area that displayed chromium detections exceeding the Ecological Benchmark of 23 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

2. Figure 5-22 illustrates the surface soil sample locations in the Open Area that displayed chromium detections exceeding the calculated site-specific background concentration for surface soil of 10.41 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

Summary

The following provides a summary of the distribution of chromium exceedances for surface soil:

1. Figure 5-23 is an isoconcentration map that illustrates the distribution of chromium detections exceeding the Ecological Benchmark of 23 mg/kg. It also illustrates areas where chromium is greater than 100 mg/kg (shaded yellow), and greater than 1,000 mg/kg (shaded red). As illustrated in this figure, there are exceedances of the screening criteria both in the Process Area and Open Area, with the highest concentrations of chromium in surface soil (exceeding 1,000 mg/kg) occurring around the footprint of the main building and HWTB. The highest concentration (13,000 JK mg/kg) occurred at sample location E6, which is located just south of the HWTB, and the next highest concentration (11,400 JL mg/kg) occurred at surface soil location C2, which is located just north of the west portion of the main building.

2. As also indicated on Figure 5-23, 3 lobes of impacted soil extend into the Open Area, with the primary lobe trending to the southeast through the southeast portion of the Open Area. This distribution is attributed to overland flow/surface water transport of product/waste from the Process Area and possibly impacted surface soil during large rain events. The highest chromium detection in the Open Area, 5,170 mg/kg, was detected at surface soil sample I10, situated in the south portion of the lobe southeast, extending downslope of the southeast portion of the Process Area. There were 6 other surface soil sample locations that displayed chromium detections greater than 1,000 mg/kg in the Open Area, which included surface soil samples E1 and F1 situated north of the main building, surface soil samples H4 and H5 situated to the southeast of the main building, and surface soil samples DSB-03 and SO-06, which are co-located with surface soil location I10, situated in the south portion of the lobe that trends southeast from the Process Area. Also indicated on this figure, the majority of the highest concentrations of chromium in surface soil occur within the perimeter of the EPA security fence.

5.3.2 Subsurface Soil

Table 5-8 provides a summary of soil results/exceedances for the Process Area, which were screened against SLs. As indicated on Table 5-8, arsenic and hexavalent chromium exceeded Residential Soil RSLs in the Process Area subsurface soil. Table 5-9 provides a summary of soil results/exceedances for the Open Area. As indicated on Table 5-9, arsenic and hexavalent chromium also exceeded Residential Soil RSLs in subsurface soil in the Open Area. These exceedances were carried forward for further evaluation under the HHRA, which identified hexavalent chromium and arsenic as the Human Health COPCs for subsurface soil at the site.

5.3.2.1 Hexavalent Chromium

Detections of hexavalent chromium were compared to its Residential Soil RSL (0.3 mg/kg), its Industrial Soil RSL (6.3 mg/kg), and the calculated site-specific background concentration for subsurface soil (1.435 mg/kg). Table 5-10 provides a summary of subsurface soil detections and SL exceedances for this metal.

<u>Process Area</u>

The following provides a description of the distribution of hexavalent chromium exceedances for the Process Area:

1. Figure 5-24 illustrates the subsurface soil sample locations in the Process Area that displayed hexavalent chromium detections exceeding the Residential Soil RSL of 0.3 mg/kg. As indicated on this figure, there were widespread exceedances of the Residential Soil RSL for hexavalent chromium.

2. Figure 5-25 illustrates subsurface soil sample locations in the Process Area that displayed hexavalent chromium detections exceeding the Industrial RSL of 6.3 mg/kg. As indicated on this figure, these exceedances occurred primarily around the south and west

portions of the footprint around the main building, and to the east and south of the HWTB.

3. Figure 5-26 illustrates sample locations that exceeded the calculated site-specific background concentration of 1.435 mg/kg for hexavalent chromium. As indicated on this figure, there were widespread detections of hexavalent chromium in the Process Area that exceeded background.

Open Area

The following provides a description of the distribution of hexavalent chromium exceedances for the Open Area:

1. Figure 5-24 illustrates the subsurface soil sample locations in the Open Area that displayed hexavalent chromium detections exceeding the Residential Soil RSL of 0.3 mg/kg. As indicated on this figure, there were several areas that had scattered detections exceeding the Residential Soil RSL for hexavalent chromium. These areas primarily include the south, southeast, and east portions of the Open Area, and northwest corner of the Open area.

2. Figure 5-25 illustrates subsurface soil sample locations in the Open Area that displayed hexavalent chromium detections exceeding the Industrial RSL of 6.3 mg/kg. As indicated on this figure, there were 4 sample locations within the Open Area that displayed detections of hexavalent chromium that exceeded the Industrial RSL Industrial RSL of 6.3 mg/kg for this metal. These exceedances occurred in close proximity to the south and east boundaries with the Process Area.

3. Figure 5-26 illustrates subsurface soil sample locations that exceeded the calculated site-specific background concentration of 1.435 mg/kg for hexavalent chromium in subsurface. As indicated on this figure, there were several areas that had scattered detections exceeding background. These areas primarily include the portions of the Open Area adjacent to the south and east portions of the Process Area, and the southeast portion of the Open Area.

Summary

The following provides a summary of the distribution of hexavalent chromium exceedances for subsurface soil:

1. Figures 5-27 through 5-29 are isoconcentration maps that illustrate the distribution of hexavalent chromium exceedances at various depth intervals within the subsurface. These figures illustrate areas exceeding the Residential Soil RSL of 0.3 mg/kg (shaded green), the area where hexavalent chromium exceeds the calculated site-specific background concentration of 1.435 mg/kg (shaded yellow), and the area hexavalent chromium detections exceed the Industrial Soil RSL of 6.3 mg/kg (shaded red).

2. The 2 to 5 ft bgs interval of the subsurface contains soil units that overlie the Austin Chalk under the Process Area and portions of the Open Area. Figure 5-27 illustrates the distribution of hexavalent chromium exceedances for this interval. As indicated on this figure, the highest concentrations exceeding the Industrial Soil RSL of 6.3 mg/kg occur near the south side of the footprint of the main building and trends to the southwest, south, and southeast encompassing most of the south and southeast portion of the Process Area, and adjacent portions of the Open Area. As also indicated on this figure, there is an area that exceeds the calculated background concentration of 1.435 mg/kg that extends from the west side of the main building to the southwest, south, and east through much of the Process Area and adjacent portions of the Open Area. The green shaded area denotes the area of subsurface soil that exceeds the Residential Soil RSL of 0.3 mg/kg. This area covers most of the Process Area as well most of the western two-thirds of the Process Area. As also illustrated on this figure, the highest concentrations of hexavalent chromium within this interval occur within the perimeter of the EPA security fence.

3. At most locations, the 5 to 10 ft bgs interval of the subsurface contains soil units that overlie the Austin Chalk under the Process Area and portions of the Open Area. Figure 5-28 illustrates the distribution of hexavalent chromium exceedances for this interval. As indicated on this figure, the highest concentrations exceeding the Industrial Soil RSL of 6.3 mg/kg occur near the south and west sides of the footprint of the main building and trends to the southwest, south, and east encompassing approximately two-thirds of the south portion of the Process Area, with 1 lobe extending southwest into the Open Area, and a second lobe extending east into the Open Area. As also indicated on this figure, there is an area that exceeds the calculated background concentration of 1.435 mg/kg that covers approximately 80% of the south portion of the Process Area, with 2 lobes that extend into the southwest, east, and south portion of the Open Area. The green shaded area denotes the area of subsurface soil that exceeds the Residential Soil RSL of 0.3 mg/kg. This area covers most of the Process Area as well as approximately 70% of the north- and south-central portions of the Open Area. As also illustrated on this figure, the highest concentrations of hexavalent chromium within this interval occur within the perimeter of the EPA security fence.

4. Where the Austin Chalk was present below the Process Area and Open Area, the 10 to 15 ft bgs sample interval is where it was encountered at depths of 10 to 12 ft bgs at many of the subsurface sample locations. The Austin Chalk was not encountered in the subsurface soil sample locations more proximal to Stream 5A2 and the unnamed stream. Figure 5-29 illustrates the distribution of hexavalent chromium exceedances for this interval. As indicated on this figure, there were no hexavalent chromium concentrations exceeding the Industrial Soil RSL of 6.3 mg/kg. As also indicated on this figure, there is an area that exceeds the calculated background concentration of 1.435 mg/kg that covers approximately 70% of the southeast portion of the Process Area and extends into adjacent portions of the Open Area. The green shaded area denotes the area of subsurface soil that exceeds the Residential Soil RSL of 0.3 mg/kg. This area covers most of the Process Area and the north and central portions of the Open Area. As also illustrated on this figure, the highest concentrations of hexavalent chromium within this interval occur within the perimeter of the EPA security fence.

5. At the site, the 15 to 20 ft bgs interval is typically within the Austin Chalk at many of the sampled locations, which is below the Process Area and portions of the Open Area. As such, only a limited number of subsurface soil samples were collected from the 15 to 20 ft. bgs interval. However, the top of the Austin Chalk was deeper and not encountered in this interval in the area surrounding MW-10, whereas the sample collected from ACMW-03 was within chalk. MW-6 is more proximal to the unnamed stream, and the Austin Chalk was also not encountered at this location. Due to the limited number of samples collected (3) in this deeper interval, and the samples being spaced over a large area, an isoconcentration map could not be created with accuracy. However, it is noted that within this interval, MW-06, which is located in the southwest portion of the Open Area, displayed a hexavalent chromium concentration of 1.2 mg/kg, which exceeded the Residential Soil RSL for this metal, but is below the calculated site-specific background concentration and the Industrial Soil RSL for this metal. ACMW-03, which is located in the northwest portion of the Open Area, displayed an hexavalent chromium concentration of 0.34 mg/kg, which is only slightly higher than the Residential Soil RSL, but is below the calculated site-specific background concentration and the Industrial Soil RSL for this metal. MW-10 displayed a hexavalent chromium detection of 5.6 mg/kg, which exceeded the Residential Soil RSL, and calculated site-specific background concentration, but is below the Industrial Soil RSL for this metal.

6. The 20 to 30 ft bgs sample interval is associated with the Austin Chalk monitoring wells, which are located in close proximity to the main building within the Process Area. As such, only a limited number of subsurface soil samples were collected from the 20 to 30 ft. bgs interval. Due to the limited number of samples collected in this deeper interval, an isoconcentration map could not be created with accuracy. However, it is noted that within this interval, ACMW-01 and ACMW-02, which are located south of the main building, displayed hexavalent chromium detections of 0.4 mg/kg and 0.59 mg/kg, respectively, at a depth of 28 to 30 ft bgs. These detections are higher than the Residential Soil RSL, but lower than the calculated site-specific background concentration and the Industrial Soil RSL for this metal. ACMW-04, which is located to the southwest of the main building, displayed a hexavalent chromium concentration of 1.8 mg/kg at a depth of 28 to 30 ft bgs, which is higher than the Residential Soil RSL and calculated site-specific background concentration, but below the Industrial Soil RSL for this metal.

7. As noted on Figure 5-24, 5 of the offsite sample locations used for the background subsurface soil investigation displayed hexavalent chromium detections that exceeded the Residential Soil RSL of 0.3 mg/kg, with 9 subsurface detections ranging from 0.34 J mg/kg BSB-7-2.0-5.0) to 2.3 J mg/kg (BSB-7-13.0-15.0). In addition, the calculated site-specific background concentration for hexavalent chromium, 1.435 mg/kg, is higher than the Residential Soil RSL of 0.3 mg/kg. This supports that lower detections of hexavalent chromium that exceeded the Residential Soil RSL of 0.3 mg/kg are due to background conditions and are not site-related.

5.3.2.2 Arsenic

The HHRA identified arsenic as a site COPC for subsurface soil. Detections of this metal were compared to its Residential Soil RSL (0.68 mg/kg), the Industrial Soil RSL (3 mg/kg), and the calculated site-specific background concentration for surface soil (7.779 mg/kg). Table 5-11 provides a summary of surface soil detections and SL exceedances for this metal.

Process Area

The following provides a description of the distribution of arsenic exceedances for the Process Area:

1. Figure 5-30 illustrates the subsurface soil sample locations in the Process Area that displayed arsenic detections exceeding the Residential Soil RSL of 0.68 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

2. Figure 5-31 illustrates the subsurface soil sample locations in the Process Area that displayed arsenic detections exceeding the Industrial Soil RSL of 3 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Process Area.

3. Figure 5-32 illustrates the subsurface soil sample locations in the Process Area that displayed arsenic detections exceeding the calculated site-specific background concentration for surface soil of 7.779 mg/kg. As indicated on this figure, there were 4 subsurface sample locations that displayed arsenic concentrations exceeding this screening criteria in the Process Area. The locations are south of the footprint of the main building, 2 locations situated east and south of the HWTB, and 1 location situated on the southwest portion of the Process Area.

Open Area

The following provides a description of the distribution of arsenic exceedances for the Open Area:

1. Figure 5-30 illustrates the subsurface soil sample locations in the Open Area that displayed arsenic detections exceeding the Residential Soil RSL of 0.68 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

2. Figure 5-31 illustrates the subsurface soil sample locations in the Open Area that displayed arsenic detections exceeding the Industrial Soil RSL of 3 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

3 Figure 5-32 illustrates the subsurface soil sample locations in the Open Area that displayed arsenic detections exceeding the calculated site-specific background concentration for surface soil of 7.7797 mg/kg. As indicated on this figure, there were widespread exceedances of this screening criteria in the Open Area.

Summary

The following provides a summary of the distribution of arsenic exceedances for subsurface surface soil:

1. Figures 5-33 through 5-35 are isoconcentration maps that illustrates the distribution of arsenic exceedances at various depth intervals within the subsurface. These figures illustrate areas exceeding the Residential Soil RSL of 0.68 mg/kg (shaded green), the area where arsenic detections exceed the Industrial Soil RSL of 3.0 mg/kg (shaded yellow), and the area where arsenic exceeds the calculated site-specific background concentration of 7.779 mg/kg (shaded red).

2. The 2 to 5 ft bgs interval of the subsurface contains soil units that overlie the Austin Chalk under the Process Area and portions of the Open Area. Figure 5-33 illustrates the distribution of arsenic exceedances for this interval. As indicated on this figure, the highest concentrations exceeding the site-specific background concentration of 7.779 mg/kg occur in 3 hot spots with 1 located on the northwest portion of the Process Area in the area surrounding subsurface soil sample location JSB-11, the second being situated on the southwest portion of the Process Area and adjacent portion of the Open Area in the area surrounding subsurface soil sample location DSB-09, and the third area occurring in the southwest portion of the Open Area in the area surrounding the subsurface soil sample collected from the MW-06 borehole. As also indicated on this figure, there is an area that exceeds the Industrial RSL of 3.0 mg/kg that covers all but the northwest corner of the Process Area, and the majority of the Open Area. The green shaded area denotes the area of subsurface soil that exceeds the Residential Soil RSL of 0.68 mg/kg. This area also covers all but the northwest corner of the Process Area, and the majority of the Open Area.

3. At most locations, the 5 to 10 ft bgs interval of the subsurface contains soil units that overlie the Austin Chalk under the Process Area and portions of the Open Area. Figure 5-34 illustrates the distribution of arsenic exceedances for this interval. As indicated on this figure, the highest concentrations exceeding the site-specific background concentration of 7.779 mg/kg occur as 2 hot spots with 1 area being situated on the southwest corner of the Process Area and extending southward in the adjacent portion of the Open Area, and the other area being situated in the extreme southeast portion of the Process Area and extending into adjacent portions of the Open Area. As also indicated on this figure, there is an area that exceeds the Industrial RSL of 3.0 mg/kg that covers approximately 70% of the south portion of the Process Area as well as much of the south and southeast portions of the Open Area. The green shaded area denotes the estimated area of subsurface soil that exceeds the Residential Soil RSL of 0.68 mg/kg. This area covers most of the Process Area as well as a large portion of the south and southeast

portion of the Open Area, with 2 exceedances also occurring in the northwest portion of the Open Area as well. As also illustrated on this figure, the highest concentrations of arsenic within this interval occur within the perimeter of the EPA security fence.

4. Where the Austin Chalk was present below the Process Area and Open Area, the 10 to 15 ft bgs sample interval is where it was encountered at depths of 10 to 12 ft bgs at many of the subsurface sample locations. The Austin Chalk was not encountered in the subsurface soil sample locations more proximal to Stream 5A2 and the unnamed stream. Figure 5-35 illustrates the distribution of arsenic exceedances for this interval. As indicated on this figure, the highest concentrations exceeding the site-specific background concentration of 7.779 mg/kg occur in the east, southeast, and south portions of the Open Area, and extends into northward into the south and southeast portions of the Process Area. As also indicated on this figure, there is an inferred area that exceeds Industrial Soil RSL of 3.0 mg/kg, which covers large portions of the Process Area and Open Area. The green shaded area denotes the area of subsurface soil that exceeds the Residential Soil RSL of 0.68 mg/kg. This area covers most of the Process Area and the Open Area. It is noted that the isoconcentration areas exceeding the Industrial Soil RSL and Residential Soil RSL were terminated at Stream 5A2 because there is no data beyond that surface water feature that could be used to accurately display the eastward lateral extent of arsenic in this interval. This is a potential data gap what will need to be addressed during the FS or Remedial Design (RD) if it is determined that arsenic at this depth interval will need to be addressed as part of the Remedial Action.

5. At the site, the 15 to 20 ft bgs interval is typically within the Austin Chalk at many of the sampled locations, which is below the Process Area and portions of the Open Area. As such, only a limited number of subsurface soil samples were collected from the 15 to 20 ft bgs interval. However, the top of the Austin Chalk was deeper and not encountered in this interval in the area surrounding MW-10, whereas the sample collected from ACMW-03 was within chalk. MW-6 is more proximal to the unnamed stream, and the Austin Chalk was also not encountered at this location. Due to the limited number of samples collected (3) in this deeper interval, and the sample locations being spaced over a large area, an isoconcentration map could not be created that would be accurate. However, it is noted that within this interval, MW-06, which is located in the southwest portion of the Open Area, displayed an arsenic concentration of 9.1 mg/kg, which exceeded the Residential Soil RSL, the Industrial Soil RSL, and the calculated site-specific background concentration for arsenic. ACMW-03, which is located in the northwest portion of the Open Area, displayed an arsenic concentration of 6 mg/kg, which exceeded the Residential Soil RSL and the industrial Soil RSL. Arsenic was not detected in the sample collected from MW-10.

6. The 20 to 30 ft bgs sample interval is associated with the Austin Chalk monitoring wells, which are located in close proximity to the main building within the Process Area. As such, only a limited number of subsurface soil samples were collected from the 20 to 30 ft bgs interval. Due to the limited number of samples collected in this deeper interval, an isoconcentration map could not be created with accuracy. However, it is noted that within this interval, ACMW-01 and ACMW-02, and ACMW-04, which are located south

and southwest of the main building, displayed arsenic detections of 3.5 mg/kg, 4.3 mg/kg, and 4.7 mg/kg, respectively, at a depth of 20 to 30 ft bgs. These detections are higher than the Residential Soil RSL and Industrial Soil RSL, but lower than the calculated site-specific background concentration for this metal.

7. As noted on Figures 5-30 and 5-31, all 8 of the offsite sample locations used for the background subsurface soil investigation displayed arsenic detections that exceeded the Residential Soil RSL of 0.68 mg/kg, and the Industrial Soil RSL of 3 mg/kg, respectively. A total of 23 subsurface soil samples collected for the background study exceeded the Residential Soil RSL, with detections ranging from 2.5 mg/kg (BSB-7-5.0-10.0) to 8.8 mg/kg (BSB-4-5.0-10.0). A total of 20 of these detections also exceeded the Industrial Soil RSL. This supports that lower detections of arsenic exceeding the Residential Soil RSL of 0.68 mg/kg and the Industrial Soil RSL of 3.0 mg/kg are due to background conditions and are not site-related.

5.4 IMPACTS IN SURFACE WATER

The surface water exposure area includes stream 5A2, which is perennial and situated east of the site; the unnamed stream, which is intermittent and situated south of the site; and 2 ponds located east of the site. The initial screening discussed in this section compared laboratory results to multiple Human Health and Ecological SLs listed in Table 5-12. COPCs for surface water include TAL metals and cyanide. Nature and extent discussions are based on the individual COPCs identified in the risk assessments, because these COPCs are considered the primary risk drivers for the site.

As indicated on Table 5-12, 6 total TAL metals, 2 dissolved TAL metals, and cyanide exceeded TAP Water RSLs. These exceedances were carried forward for further evaluation under the HHRA, which identified lead as a COPC. A total of 11 total TAL metals, 2 dissolved TAL metals, and cyanide exceeded 1 or more Ecological SLs, and they were carried forward for further evaluation under the ERA, which identified no COPCs for surface water.

5.4.1 Lead

As previously stated, the HHRA identified lead as a site COPC. The evaluation of lead in surface water was performed based upon a comparison to the EPA action level of 15 micrograms per liter (µg/L) for lead and the TCEQ Surface Water Quality Standards for Ingestion of Fish Only (3.83 microgram per liter [µg/L]). As indicated in the HHRA, the mean detected concentration for lead in surface water was 14.7 µg/L, which is slightly lower than the EPA action level.

Lead was detected in surface water above the TCEQ Surface Water Quality Standards for Ingestion of Fish Only of 3.83 µg/L in five of the 39 surface water samples evaluated as part of the RI and risk assessments: background surface water sample location BLSW-5 (6.9 µg/L) and investigatory sample locations SW-03 (15.6 µg/L), SW-04 (139 µg/L), SW-09 (6.2 µg/L), SW-12 (5.1 B µg/L), and SW-15 (5.7 µg/L), with SW-25 being a field duplicate for SW-09. Figure

5-36 illustrates the location of these exceedances for total lead. As noted on Figure 5-37, there were no exceedances associated with the dissolved lead surface water samples.

5.5 IMPACTS IN SEDIMENT

The sediment exposure area includes stream 5A2, which is perennial and situated east of the site, the unnamed stream, which is intermittent and situated south of the site, and 2 ponds located west of the site. The initial screening discussed in this section compared laboratory results to multiple Human Health and Ecological SLs listed in Table 5-13.

As indicated on Table 5-13, arsenic and hexavalent chromium exceeded Human Health sediment screening values and were carried forward for further evaluation under the HHRA, which identified neither of them as a site COPC for sediment. As also indicated on Table 5-14, a total of 8 TAL metals, hexavalent chromium, and 2 SVOCs exceeded 1 or more Ecological SLs, and they were carried forward for further evaluation under the ERA, which identified no COPCs for sediment.

5.6 IMPACTS IN GROUNDWATER

Groundwater samples were collected from the monitoring wells installed during the RI and from the 2 existing onsite hand-dug wells/cisterns. The majority of the groundwater samples collected during the RI were collected from the perched groundwater zone that lies above the Austin Chalk, with 3 of the groundwater samples being collected from the deeper monitoring wells installed in the upper portion of the Austin Chalk.

As indicated on Table 5-14, total and dissolved chromium and manganese exceeded their respective Tap Water RSLs, while dissolved and total chromium exceeded the MCL for this metal. Tap Water RSLs and/or MCLs are not available for PFAS. As such, detections of these compounds were screened against TCEQ Tier 1 $^{GW}GW_{Ing}$ PCLs, with detections of perfluorohexanesulfonic acid (PFHxS) and perfluorooctanesulfonic acid (PFOS) exceeding these screening criteria. These exceedances were carried forward for further evaluation under the HHRA, which identified hexavalent chromium,PFHxS, and PFOS as site COPCs for groundwater. Total and dissolved chromium have also been included in the below nature and extent discussions due detections in groundwater that exceeded the MCL of 100 µg/L for this metal.

5.6.1 Hexavalent Chromium

As previously stated, the HHRA identified hexavalent chromium as a site COPC for groundwater. The evaluation of hexavalent chromium in groundwater was performed based upon a comparison to EPA Tap Water RSL (0.035 µg/L). Figure 5-38 illustrates the distribution of detections and exceedances of this metal in groundwater. As noted on this figure, 7 of the 10 perched zone groundwater monitoring wells, 2 of the Austin Chalk monitoring wells, and the 2 the hand-dug water wells/cisterns displayed detections exceeding the Tap Water RSL for this metal. The highest detection, 5,630 µg/L, occurred in perched groundwater zone monitoring well MW-10, while its corresponding Austin Chalk Well (ACMW-04) displayed the highest

hexavalent chromium detection (119 µg/L) for the Austin Chalk monitoring wells. Other perched zone monitoring wells near the footprint of the main building and HWTB also displayed hexavalent chromium detections ranging from 7.1 µg/L (WW-02; May 2019) to 669 µg/L (MW-09; February 2020). Perched groundwater zone monitoring well MW-05 displayed the highest downgradient detection at a concentration of 32.9 µg/L.

As also illustrated on this figure, although 2 of the Austin Chalk monitoring wells displayed hexavalent chromium exceedances, these exceedances were significantly lower than the exceedances associated with the corresponding perched groundwater zone monitoring well:

Perched Groundwater Zone Well	Concentration (µg/L)	Austin Chalk Monitoring Well	Concentration (µg/L)	Order of Magnitude Difference
MW-01	**336**	**ACMW-01**	**1.6**	210x
MW-09	669	ACMW-02	<0.15	4,460x
MW10	5,630	ACMW-04	119	47x

This distribution of these detections supports that while some site-related COPCs have made it locally into the upper portion of the Austin Chalk by way of localized fractures, joints, bedding planes, etc., the majority of the groundwater plume mass occurs in the perched groundwater unit on top of the Austin Chalk.

Figure 5-39 is an isoconcentration map that illustrates the distribution of hexavalent chromium detections in the perched groundwater zone. The area shaded green corresponds to detections that exceed the EPA Tap Water RSL of 0.035 µg/L, while the area shaded yellow corresponds to detections that also exceed the TCEQ Tier 1 $^{GW}GW_{Ing}$ PCL of 100 µg/L, and the red shaded area corresponds to detections that exceed 500 µg/L. As indicated on this figure, there is a large area across the site that exceeds this PCL. It extends from MW-02 westward to MW-10, and southwestward to downgradient wells MW-05, MW-06, and MW-07. As also shown on this figure, concentrations that also exceed the TCEQ Tier 1 $^{GW}GW_{Ing}$ PCL of 100 µg/L occur in the area that contains the main building, HWTB, and other associated structures, with concentrations exceeding 500 µg/L occurring under the west portion of the main building and in the area west and southwest of this structure.

It is noted that the isoconcentration areas exceeding the EPA Tap Water RSL and TCEQ Tier 1 $^{GW}GW_{Ing}$ PCL were terminated along the west and southwest property boundaries because there is no data beyond these boundaries that could be used to accurately display the southwestward and westward lateral extent of the hexavalent chromium plume in the perched groundwater zone. This is a potential data gap what will need to be addressed during the FS or RD if it is determined that the perched groundwater should be treated as a drinking water resource and remediated to the EPA Tap Water RSL of 0.035 µg/L.

Figure 5-40 is an isoconcentration map that illustrates the distribution of hexavalent chromium detections in the Austin Chalk monitoring wells. The area shaded green designates detections that exceed the EPA Tap Water RSL of 0.035 µg/L, while the area shaded yellow designated detections that exceed the TCEQ Tier 1 $^{GW}GW_{Ing}$ PCL of 100 µg/L. As noted on this figure,

there is an area located south and west of the main building that exceeds the EPA Tap Water RSL of 0.035 µg/L, and an area surrounding ACMW-04 that also exceeds the TCEQ Tier 1 $^{GW}GW_{Ing}$ PCL of 100 µg/L.

5.6.2 Chromium

A portion of the chromium detections for groundwater exceeded the groundwater MCL of 100 µg/L. The evaluation of chromium in groundwater was performed based upon a comparison to this EPA MCL. Figures 5-41 and 5-42 illustrate the distribution of dissolved and total chromium exceedances, respectively in groundwater.

As noted on Figure 5-41 perched groundwater zone monitoring wells MW-01, MW-09, and MW-10 displayed dissolved chromium MCL exceedances ranging from 240 µg/L (MW-01; May 2019) to 5,840 µg/L (MW-10; February 2020). In the case of the Austin Chalk monitoring wells, only ACMW-04 displayed an exceedance of 127 µg/L, which is above the MCL, while the field duplicate sample collected from ACMW-04 displayed a detection of 96.1 µg/L, which is below the MCL for chromium. In the case of the hand-dug water wells/cisterns, WW-01 displayed a detection of 626 µg/L in May 2019, which exceeded the groundwater MCL for this metal. However, the groundwater sample collected from this well in February 2020 displayed a detection of 39.2 µg/L, which is below the MCL for chromium. All of these wells are in close proximity to the footprint of the main building and HWTB. None of the more distal monitoring wells installed during the RI displayed dissolved chromium detections that exceeded the MCL for this metal.

As noted on Figure 5-42, perched groundwater zone monitoring wells MW-01, MW-09, and MW-10 displayed total chromium MCL exceedances ranging from 244 µg/L (MW-01; May 2019) to 6,100 µg/L (MW-10; February 2020). In the case of the Austin Chalk monitoring wells, only ACMW-04 displayed an exceedance of 139 µg/L in the field duplicate sample, while the parent sample collected from the well had a detection of 108 µg/L, which is slightly above the MCL for chromium. In the case of the hand-dug water wells/cisterns, WW-01 displayed a detection of 620 µg/L in May 2019, which exceeded the groundwater MCL for chromium. However, the groundwater sample collected from this well in February 2020 displayed a detection of 42.2 µg/L, which is below the MCL for chromium. All of these wells are in close proximity to the footprint of the main building and HWTB. None of the more distal monitoring wells installed during the RI displayed total chromium detections that exceeded the MCL for this metal.

As also illustrated on this figure, although one of the Austin Chalk monitoring wells displayed dissolved and total chromium exceedances, these exceedances were significantly lower than the exceedances associated with the corresponding perched groundwater zone monitoring well:

Perched Groundwater Zone Well	Concentration (µg/L)	Austin Chalk Monitoring Well	Concentration (µg/L)	Order of Magnitude Difference
Dissolved Chromium				
MW10	5,840	ACMW-04	127	46x

Perched Groundwater Zone Well	Concentration (µg/L)	Austin Chalk Monitoring Well	Concentration (µg/L)	Order of Magnitude Difference
Total Chromium				
MW10	6,100	ACMW-04	139	44x

As with hexavalent chromium, the distribution of these detections supports that while some site-related COPCs have made it locally into the upper portion of the Austin Chalk by way of localized fractures, joints, bedding planes, etc., the majority of the groundwater plume mass occurs in the perched groundwater unit on top of the Austin Chalk.

Figure 5-43 is an isoconcentration map that illustrates the distribution of dissolved chromium detections in the perched groundwater zone. The area shaded green corresponds to detections that exceed the EPA MCL of 100 µg/L, while the area shaded yellow corresponds to detections that are 5 times higher than the MCL, and the red shaded area corresponds to detections that are 10 times the MCL. As indicated on this figure, the dissolved chromium plume is defined to the east, southeast, and south, with exceedances occurring primarily in the Process Area, and a portion of the Open Area just to the east of the Process Area. Detections that are 5 times higher than the MCL occur on the northwest portion of the Process Area, with the highest concentration, 5,840 µg/L, occurring in the area surrounding MW-10.

It is noted that the isoconcentration areas exceeding the EPA MCL and 5 times the MCL were terminated along the property boundary west of MW-10. This is due to the high dissolved chromium concentration associated with MW-10, and there not being an additional monitoring well to the west to complete plume delineation west of MW-10. This is a data gap what will need to be addressed during the FS or RD in order to complete delineation of the dissolved chromium plume west of MW-10 to its MCL of 100 µg/L .

Figure 5-44 is an isoconcentration map that illustrates the distribution of total chromium detections in the perched groundwater zone. The area shaded green corresponds to detections that exceed the EPA MCL of 100 µg/L, while the area shaded yellow corresponds to detections that are 5 times higher than the MCL, and the red shaded area corresponds to detections are 10 times the MCL. As indicated on this figure, the total chromium plume is defined to the east, southeast, and south, with exceedances occurring primarily in the Process Area, and a portion of the Open Area just to the east of the Process Area. Detections that are 5 times higher than the MCL occur on the northwest portion of the Process Area, with the highest concentration, 6,100 µg/L, occurring in the area surrounding MW-10.

It is noted that the isoconcentration areas exceeding the EPA MCL and 5 times the MCL were terminated along the property boundary west of MW-10. This is due to the high total chromium concentration associated with MW-10, and there not being a monitoring well to the west to complete plume delineation west of MW-10. This is a data gap what will need to be addressed during the FS or RD in order to complete delineation of the total chromium plume west of MW-10 to its MCL of 100 µg/L.

Figure 5-45 is an isoconcentration map that illustrates the distribution of dissolved chromium detections in the Austin Chalk monitoring wells. The area shaded green corresponds to detections that exceed the EPA MCL of 100 µg/L. As indicated on this map, ACMW-04 displayed a dissolved chromium detection that was slightly higher than the MCL of 100 µg/L, with there being no detections of dissolved chromium associated with ACMW-01 and ACMW-02.

Figure 5-46 is an isoconcentration map that illustrates the distribution of total chromium detections in the Austin Chalk monitoring wells. The area shaded green designates detections that exceed the EPA MCL of 100 µg/L. As indicated on this map, ACMW-04 displayed a total chromium detection that was higher than the MCL of 100 µg/L, with there being no detections of dissolved chromium associated with ACMW-01 and ACMW-02.

5.6.3 Per- and Polyfluoroalkyl Substances

The HHRA identified PFHxS and PFOS as site COPCs for groundwater. The evaluation of these compounds in groundwater was performed based upon a comparison to the TCEQ Residential Tier 1 $^{GW}GW_{Ing}$ PCL of 0.093 µg/L and TCEQ Commercial/Industrial Tier 1 $^{GW}GW_{Ing}$ PCL of 0.28 µg/L for PFHxS.

As noted on Figure 5-47, only perched groundwater zone monitoring well MW-01 displayed exceedances of PFHxS, with the remaining perched groundwater zone monitoring wells, the Austin Chalk monitoring wells, and the 2 had-dug wells/cisterns not displaying exceedances for this compound. MW-01 displayed a PFHxS detection of 0.48 µg/L during the May 2019 groundwater sampling event.

As noted in the HHRA (EA 2020b), EPA has set forth a Drinking Water Health Advisory for PFOS and PFOA combined of 0.07 µg/L. As such, the HHRA also identified PFOS as a site COPC. Figure 5-48 illustrates the distribution of PFOS detections that exceed this advisory level. As noted on this figure, PFOS was detected above the advisory level in seven of the perched zone monitoring wells, one of the Austin Chalk monitoring wells, and one of the hand-dug wells. It was not detected in Austin Chalk monitoring well ACMW-02.

As with hexavalent chromium and chromium, the distribution of these detections supports that while some site-related COPCs have made it locally into the upper portion of the Austin Chalk by way of localized fractures, joints, bedding planes, etc., the majority of the groundwater plume mass occurs in the perched groundwater unit on top of the Austin Chalk.

Figure 5-49 is an isoconcentration map that illustrates the distribution of PFHxS detections in the perched groundwater zone. The area shaded green corresponds to the detections that exceeded the TCEQ Residential Tier 1 $^{GW}GW_{Ing}$ PCL of 0.093 µg/L. As is illustrated on this map, there is an area surrounding MW-01 that exceeds the TCEQ Tier 1 $^{GW}GW_{Ing}$ PCL of 0.093 µg/L, while detections associated with the remaining perched groundwater zone monitoring wells were below this screening criteria.

Figures 5-50 and 5-51 are isoconcentration maps that illustrate the distribution of PFOS detections in the perched groundwater zone and the Austin Chalk monitoring wells, respectively. It is noted that as with the hexavalent chromium plume, boundaries for the PFOS isoconcentration area were terminated along the west, southwest, and south site boundaries because there is no data beyond these boundaries that could be used to accurately display the southward, southwestward and westward lateral extent of the PFOS in the perched groundwater zone. This is a potential data gap what will need to be addressed during the FS or RD if it is determined that the perched groundwater should be treated as a drinking water resource and remediated to the EPA Drinking Water Health Advisory for PFOS and PFOA combined of 0.07 µg/L.

5.7 CONTAMINANT MIGRATION PATHWAYS

COPCs may migrate via the following migration pathways:

- **Leaching to Groundwater—**As water percolates from the surface, particularly in the Process Area, through vadose zone soil to the underlying perched groundwater, it carries dissolved phase constituents. Additionally, where present, source material in contact with groundwater can leach directly to the perched groundwater. This is a complete pathway that has led to the formation of the groundwater plumes associated with the site. The TCEQ Residential Soil 0.5 acre source area $^{GW}Soil_{Ing}$ PCLs for total chromium and hexavalent chromium are 2,400 mg/kg and 28 mg/kg, respectively for class 1 and 2 groundwater resources. These PCLs will be considered once groundwater classification has been completed and during development of Preliminary Remediation Goals (PRGs) when the FS is being completed.

- **Groundwater Transport—**As groundwater moves downgradient through the saturated zone, it can carry dissolved phase constituents. Based on data collected during the RI, this is a complete but insignificant pathway at the site. Data supports that groundwater and surface water are in communication with each other on the east part of the site abutting Stream 5A2, which is a perennial surface water feature. Based on the potentiometric groundwater surface and distribution of COPCs in the perched groundwater zone, groundwater is migrating in a southwest and south direction away from Stream 5A2 and toward the unnamed stream. During the RI, the unnamed stream contained water only during and immediately following heavy rain events, which supports the site's groundwater is not discharging directly into this surface water feature. In addition, the distribution of site COPCs do not support a significant groundwater to surface water pathway. Hexavalent chromium, chromium are groundwater COPCs for the site, but these metals were not detected in surface water samples collected during the RI. In addition, lead in surface water was identified as possible human health COPC due to ingestion of fish; however, lead was not detected in groundwater samples collected at the site during the RI. As such, the lead detected in surface water is not site-related.

- **Overland Flow—**As water flows across the site, chemicals may be transported in stormwater to water bodies surrounding the site. This is particularly true for overland

flow from the Process Area in a southeast direction through the Open area and toward the unnamed stream.

- **Air Particulate Transport—**Winds or other soil disturbances may transport chemicals from the site.

5.8 CONCEPTUAL UNDERSTANDING OF THE SITE

The conceptual understanding of the site is summarized below.

5.8.1 Process Area

Source material from releases of chemicals, waste products, and untreated wastewater stored/used/processed in the main building, the HWTB, the wastewater treatment building, and sandblasting waste material, accumulated on the ground surface to the southeast of the HWTB has impacted surface soil. This impact has either traveled vertically into the subsurface and impacted the perched groundwater zone or traveled as overland flow by way of surface water and sediment transport from the Process Area to the north, east, south, and southeast into the Open Area. Based on the distribution of site COPCs, the primary overland transport direction is from the east portion of the Process Area where it trends southeast through the Open Area toward the unnamed stream. In addition, sumps used in electroplating processes located in the main building may have also leaked and impacted subsurface soil directly when the facility was active.

As indicated on isoconcentration maps, the footprint around the main building and HWTB consistently demonstrate the highest detections of COPCs, with some of the highest concentrations occurring south and east of the HWTB.

For surface soil, the HHRA identified arsenic, hexavalent chromium, lead, and mercury as Human Health COPCs. The ERA identified antimony, cadmium, chromium, hexavalent chromium, copper, lead, mercury, and nickel as Ecological COPCs for the Process Area. For subsurface soil, the HHRA identified hexavalent chromium and arsenic as Human Health COPCs.

5.8.2 Open Area

Source materials from releases of chemicals associated with the Process Area have either traveled vertically into the subsurface and impacted the perched groundwater zone migrating beneath the Open Area, or traveled as overland flow by way of surface water and sediment transport from the Process Area to the portions of the Open Area situated north, east, south, and southeast of the Process Area. Based on the distribution of site COPCs, the primary overland transport is from the east portion of the Process Area where it trends southeast through the Open Area toward the unnamed stream.

For surface soil, the HHRA identified arsenic, hexavalent chromium, lead, and mercury as Human Health COPCs. The ERA identified chromium, hexavalent chromium, and mercury as

Ecological COPCs for the Open Area. For subsurface soil, the HHRA identified hexavalent chromium and arsenic as Human Health COPCs.

5.8.3 Surface Water and Sediment

The surface water exposure area includes stream 5A2, which is perennial and situated east of the site; the unnamed stream, which is intermittent and situated south of the site; and 2 ponds located east of the site. Based on the distribution of COPC exceedances in the Open Area surface soil, the primary direction of overland flow and transport from the Process Area is to the southeast toward the unnamed stream. While some site-related COPCs may periodically be introduced into adjacent surface water bodies, data collected during the RI does not support major site-related impact to surface water and sediment in these surface water features. The ERA identified no COPCs for surface water or sediment, while the HHRA identified lead as a COPC for surface water, but no COPCs for sediment. In the case of the lead detections in surface water, total lead exceeded the TCEQ Surface Water Quality Standards for ingestion of fish only (3.83 µg/L) at only 4 of the surface water sample locations, with 1 being a background location associated with the unnamed stream. In the case of dissolved lead, there were no detections that exceeded this SL for this metal.

5.8.4 Groundwater

Source material from releases within the Process Area have traveled vertically into the subsurface and impacted the perched groundwater zone. This perched groundwater zone is situated in terrace deposits that are underlain by Austin Chalk bedrock in the Process Area, and portions of the Open Area. With 1 exception, the Austin Chalk is encountered at approximately 10 to 12 ft at most locations where it is present. In the vicinity of ACMW-04, MW-10, JSB-4, JSB-5, JSB-6, and JSB-9, chalk bedrock was encountered at depths deeper than 15 ft bgs, which suggests a possible paleo-structure, such as small erosional trough or former stream channel, may exist beneath the northwest portion of the site. Data collected during the RI also supports that for monitoring wells installed in the Open Area near Stream 5A2 and the unnamed stream, the Austin Chalk has been eroded to deeper depths and replaced with alluvium.

The HHRA identified hexavalent chromium, PFHxS, and PFOS as COPCs for groundwater. Dissolved and total chromium were also evaluated in the RI, due to several detections that exceeded the MCL for this metal. As illustrated on isoconcentration maps for these COPCs, the highest detections of total and dissolved chromium, PFHxS, and PFOS are associated with monitoring wells installed in close proximity to the main building in the Process Area. These COPCs are also below the EPA MCL for chromium, and TCEQ PCL for PFHxS in monitoring wells installed in the Open Area. For hexavalent chromium and PFOS, the highest detections of these COPCs are also associated with the monitoring wells installed near the main building in the Process Area. However, groundwater samples collected during the RI demonstrate detections of hexavalent chromium that exceed the EPA TAP Water RSL and PFOS detections that exceed the EPA Drinking Water Health Advisory for PFOS and PFOA in side- and down gradient wells installed in the Open Area. This is attributed to these COPCs being more mobile than the other groundwater COPCs. The distribution of COPCs in groundwater also supports that while some site-related COPCs have made it locally into the upper portion of the Austin Chalk by way of

localized fractures, joints, bedding planes, etc., the majority of the groundwater plume mass occurs in the perched groundwater unit on top of the Austin Chalk.

It is noted that potable water is supplied to the area by the City of Dallas, and the perched groundwater at the site is not used locally as a groundwater resource. As also pointed out in Section 3.4.4 of this report, the closest domestic well is located within 3 miles east (side gradient) of the site, and 2 stock wells are located within 3 and 4 miles east (side gradient) of the site, all screened within shallow alluvium. Industrial wells are situated within 2 miles east-northeast (upgradient; 2 wells) and 4 miles north (upgradient; 5 wells) of the site. Irrigation and industrial wells are reportedly screened in the shallow alluvium and Woodbine Aquifer. As also pointed under Section 3.4.1 of this report hydraulic conductivity is low in the underlying Austin Chalk, which is very limited as an aquifer.

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6. HUMAN HEALTH RISK ASSESSMENT

The purpose of the HHRA is to evaluate potential Human Health concerns from exposure to environmental media within or near the site that has been affected by past releases. To determine Human Health concerns, the HHRA evaluates potential sources of contamination and routes of migration based on current and potential future site uses. The HHRA results are based upon exposure pathways that are occurring, can occur, or are reasonably likely to occur in the future. Risks determined in the HHRA are considered baseline risks associated with exposure to media affected by the site. The baseline risk assumes no remedial actions or other means of exposure reduction. The HHRA evaluates the reasonable maximum exposure that has the potential to occur at the site. Therefore, HHRA results are considered potential and should be used as a guideline in making risk management decisions.

The Revision 02 HHRA (EA 2020b) was completed and submitted under separate in October 2020. The following table and text present a summary of the HHRA results.

HHRA Summary of Results

Current and Future Receptors	HHRA Results			COPC Contributing Significantly to Results[b]
	Media	Carcinogenic Risks[a]	Noncarcinogenic Hazards[a]	
Child Resident[c]	Surface soil-Open Area	Not applicable	2[d]	Not applicable[d]
	Subsurface soil-Open Area	Not applicable	2[d]	Not applicable [d]
	Surface soil-Process Area	Not applicable	**9**	Hexavalent Chromium, Mercury
	Subsurface soil-Process Area	Not applicable	2[d]	Not applicable [d]
	Groundwater	Not applicable	**76**	Hexavalent Chromium, PFOS, PFHxS
	Surface water	Not applicable	0.08	Not applicable
	Sediment	Not applicable	0.07	Not applicable
Adult Resident[c]	Surface soil-Open Area	Not applicable	0.2	Not applicable
	Subsurface soil-Open Area	Not applicable	0.2	Not applicable
	Surface soil-Process Area	Not applicable	0.9	Not applicable
	Subsurface soil-Process Area	Not applicable	0.2	Not applicable
	Groundwater	Not applicable	**48**	Hexavalent Chromium, PFOS, PFHxS
	Surface water	Not applicable	0.02	Not applicable
	Sediment	Not applicable	0.01	Not applicable

Current and Future Receptors	HHRA Results			COPC Contributing Significantly to Results[b]
	Media	Carcinogenic Risks[a]	Noncarcinogenic Hazards[a]	
Adult and Child Resident, Combined	Surface soil-Open Area	4×10^{-5}	Not applicable	Arsenic, Hexavalent Chromium
	Subsurface soil-Open Area	4×10^{-5}	Not applicable	Hexavalent Chromium, Arsenic
	Surface soil-Process Area	**2×10^{-3}**	Not applicable	Hexavalent Chromium
	Subsurface soil-Process Area	7×10^{-5}	Not applicable	
	Groundwater	**6×10^{-2}**	Not applicable	Hexavalent Chromium
	Surface water	9×10^{-7}	Not applicable	
	Sediment	9×10^{-7}	Not applicable	
Construction Worker	Surface soil-Open Area	5×10^{-7}	0.5	Not applicable
	Subsurface soil-Open Area	5×10^{-7}	0.4	Not applicable
	Surface soil-Process Area	1×10^{-5}	2[d]	Not applicable [d]
	Subsurface soil-Process Area	7×10^{-7}	0.4	Not applicable
Commercial/ Industrial Worker	Surface soil-Open Area	3×10^{-6}	0.1	Not applicable
	Surface soil-Process Area	8×10^{-5}	0.6	Not applicable
	Groundwater	**4×10^{-3}**	**12**	Hexavalent Chromium, PFOS
Adolescent Trespasser	Surface soil-Open Area	2×10^{-6}	0.1	Not applicable
	Surface soil-Process Area	7×10^{-5}	0.5	Hexavalent Chromium
	Surface water	3×10^{-7}	0.03	Not applicable
	Sediment	3×10^{-7}	0.02	Not applicable

Notes:
a. Total Risks and hazards presented for each Area do not equal the sum of individual environmental media due to rounding.
b. A significant contributor is defined as a COPC that contributes greater than 10^{-5} carcinogenic risk or non-carcinogenic hazard greater than 1.
c. Carcinogenic risks for the resident adult and child are combined and presented as a total lifetime cumulative carcinogenic risk.
d. A breakdown by target organ did not reveal any non-carcinogenic hazards greater than 1.

Exposure Pathways that exceed the EPA cancer risk range and/or a noncarcinogenic hazard greater than 1 are bolded and highlighted.

The HHRA revealed carcinogenic risks within the EPA cancer risk range and noncarcinogenic hazards below a level of concern for exposure to soil within the Open Area exposure area, surface water, and sediment.

Potential concerns were identified for surface soil within the Process Area exposure area and groundwater as a tap water supply. Primary contributors to risk concerns were hexavalent chromium, mercury, PFOS, and PFHxS.

6.1 SURFACE SOIL

Surface soil within the Process Area exposure area revealed carcinogenic risks above the EPA acceptable risk range for the resident. Additionally, carcinogenic risks for all other receptors (i.e., construction worker, commercial/industrial worker, adolescent trespasser) exposure to surface soil were above a cancer risk level of 10^{-5}. Non-carcinogenic hazards for the resident child exceeded an acceptable level of 1 for hexavalent chromium and mercury within the Process Area exposure area. Six sample locations (G7, E6, JSB-2, MW-1, F7, and D2) within the Process Area had hexavalent chromium concentrations above 300 mg/kg. Additionally, 24 sample locations had hexavalent chromium concentrations above 30 mg/kg within the Process Area. Subsurface soil concentrations of hexavalent chromium were significantly less than surface soil. Within the Open Area exposure area, carcinogenic risks for all receptors were within the EPA's cancer risk range.

It is noted that 12 sample locations both within the Process Area and Open Area had detection limits for hexavalent chromium greater than 200 mg/kg. Sample locations within the Open Area included H5, B7, H4, H3, and A7. Some of these locations revealed the maximum detected concentration for other metals within the Open Area.

Mercury also revealed non-carcinogenic hazards above 1 for the resident child exposure to surface soil within the Process Area. Elevated concentrations of mercury were detected to the north, east, and south of the former building. The locations of elevated mercury are co-located with elevated concentrations of hexavalent chromium.

It is noted that carcinogenic risks for the resident, commercial worker, and trespasser were within the EPA cancer risk range. These risks were above the EPA point of departure of 10^{-6}. The Open Area exposure contains soil samples that were collected within and outside the EPA security fence. The security fence is in good condition and limits trespassers or other potential receptors. Therefore, the results within the Open Area were evaluated to assess the samples within and outside the EPA security fence. For carcinogenic risks, the primary contributor is hexavalent chromium for both the Process Area and the Open Area. Additionally, mercury had maximum detected concentrations greater than ten times the EPA residential soil RSL for both exposure areas, which would equate to an approximately noncancer hazard greater than 1.

The maximum detected concentration of hexavalent chromium for the Open Area was within the EPA security fence. The 95UCLM for hexavalent chromium within the EPA security fence is 4.5 mg/kg and outside the EPA security fence is 1.6 mg/kg. The 95UCLM outside of the chain-link fence would result in an approximate risk level of $5x10^{-6}$, when compared to the EPA Residential Soil RSL of 0.3 mg/kg. As shown on Figure 5-7, the highest concentrations of hexavalent chromium are within the EPA security fence within both the Open Area and Process Areas. For mercury within the Open Area, the maximum detected concentration was within the EPA security fence of the Open Area. As shown on Figures 5-13, 5-14, and 5-16, all

exceedances of the mercury Residential Soil RSL are within the EPA security fence within both the Open Area and Process Area. Therefore, concentrations of hexavalent chromium and mercury were lower within samples located outside the EPA security fence and would not result in human health concerns for any receptor contact with soil.

6.2 GROUNDWATER

Concentrations of hexavalent chromium revealed significant risk concerns for the perched groundwater zone as a tap water supply. Eleven of the perched groundwater zone samples revealed hexavalent chromium concentrations 2 orders of magnitude higher than the EPA tap water RSL of 0.035 µg/L. These sample locations include MW-10, MW-09, WW-01, MW-01, ACMW-04, WW-02, MW-05, and MW-07. Four of these locations (MW-10, MW-09, WW-01, MW-01) revealed hexavalent chromium concentrations 4 orders of magnitude higher than the tap water RSL. Six monitoring wells exceeded the EPA maximum contaminant level of 100 µg/L for total chromium. Figures 5-39 and 5-40 are isoconcentration maps for hexavalent chromium in the perched groundwater zone and the Austin Chalk monitoring wells, respectively. These figures reveal that hexavalent chromium concentrations above a level of concern are primarily centered within the EPA security fence.

PFOS and PFHxS in groundwater revealed non-carcinogenic hazards above the acceptable level of 1 for the resident child, resident adult, and commercial/industrial worker. The only detections of PFHxS above the risk-based screening criteria, set forth by TCEQ, were within MW-01. This well is located along the southeast corner of the former building. This well also had hexavalent chromium detections of 336 µg/L. Figure 5-48 is an isoconcentration map for PFHxS in the perched groundwater zone. Only detections within the Process Area exceed the TCEQ Residential PCL. For PFOS, EPA has set forth a Drinking Water Health Advisory for PFOS and PFOA combined of 0.07 µg/L. Concentrations of PFOA do not contribute to overall combined PFOS/PFOA concentrations, so only PFOS is discussed in relation to the Drinking Water Health Advisory. PFOS was detected above the advisory level in 9 out of 14 wells sampled: MW-01, MW-10, MW-09, MW-06, ACMW-04, MW-05, MW-07, MW-04, and WW-01.

Potable water is supplied to the site and the surrounding area by the City of Dallas.

6.3 RESULTS OF LEAD MODELING

Lead was considered a COPC for surface soil within the Open Area and Process Area based upon a comparison of the maximum detected concentration to the EPA Residential Soil RSL. Lead was evaluated for the residential scenario with the EPA Integrated Exposure Uptake Biokinetic Model (IEUBK). Potential concerns for workers were evaluated with the EPA Adult Lead Model. Both models evaluate the percentage of a target population that will have blood-lead levels above a reference concentration. A range of reference blood-lead levels were evaluated: 5 micrograms per deciliter (µg/dL), 8µg /dL, and 10 µg/dL. The arithmetic means for lead in surface soil within the Open Area (47.3 mg/kg), and the Process Area (941.2 mg/kg) were used as the soil lead concentrations. Outputs of the IEUBK model (including probability density graphs) and the Adult Lead Model are presented in Appendix D of the HHRA (EA 2020b). Figures 5-8, 5-9, and 5-12 present the lead detections at the site.

6.3.1 Open Area Surface Soil

Reference Blood-lead Level	5 µg /dL		8 µg /dL		10 µg /dL	
	% Exceeding	Mean Blood-lead Level (µg/dL)	% Exceeding	Mean Blood-lead Level (µg /dL)	% Exceeding	Mean Blood-lead Level (µg /dL)
IEUBK Model	0.19	1.3	0.005	1.3	0.001	1.3
Adult Lead Model	0.03	1.82	0.001	1.82	0.0002	1.8

The models indicate mean blood-lead levels of approximately 2 µg/dL. Based upon the IEUBK, less than 5% of the population exceed the reference level, which reveals lead in surface soil is not a potential concern for resident children based upon the average concentration within the Open Area exposure area. For the adult lead model, none of the reference blood-lead levels had greater than 5% of the population exceeding. One sample's result exceeded the EPA Residential Soil RSL of 400 mg/kg, sample location H4 (797 mg/kg). As shown on Figure 5-8, all lead detections above the Residential Soil RSL are within the EPA security fence.

6.3.2 Process Area Surface Soil

Reference Blood-lead Level	5 µg /dL		8 µg /dL		10 µg /dL	
	% Exceeding	Mean Blood-lead Level (µg/dL)	% Exceeding	Mean Blood-lead Level (µg /dL)	% Exceeding	Mean Blood-lead Level (µg /dL)
IEUBK Model	86.9	8.5	54.9	8.5	36.2	8.5
Adult Lead Model	24.0	8.7	6.6	8.7	3.0	8.7

The models indicate mean blood-lead levels of approximately 8 µg/dL. Based upon the IEUBK, significantly greater than 5% of the population exceed the reference level, which reveals that lead in surface soil is a potential concern for resident children based upon the average concentration within the Process Area exposure area. For the adult lead model, the reference blood-lead level had greater than 5% of the population exceeding, except at the 10 µg/dL reference blood-lead level. Twenty-three sample results exceed the EPA Residential Soil RSL of 400 mg/kg. Eighteen of these sample locations had lead concentrations greater than 1,000 mg/kg. This reveals lead is a concern within the Process Area

6.3.3 Surface Water

Lead was identified as a COPC in surface water based upon a comparison to the EPA action level of 15 µg/L for lead. The mean detected concentration in surface water was 14.7 µg/L. The mean concentration is slightly lower than the action level. It is noted that the total lead detections in surface water are highly influenced by the maximum detected concentration of 139 µg/L at sample location SW-04. This sample location also had the maximum detected concentration of total metals in surface water. Filtered surface water samples were not collected from this location. The downgradient surface water locations (SW-05 and SW-06) from this location had total metals concentrations more than 10 times lower than SW-04. For instance, the total lead concentration at SW-05 (2.4 µg/L) and SW-06 (2.5 µg/L) would not exceed the EPA

action level or the TCEQ surface water risk-based exposure limit for ingestion of fish (3.83 µg/L). Surface water sample location SW-04 is located within the footprint of small pond, which has been silted in and has become wetland/marsh area which limits human contact, and fish of edible size were not observed in this location. Therefore, sample location SW-04 is not expected to cause a concern for human health.

7. ECOLOGICAL RISK ASSESSMENT

The purpose of an ERA is to characterize and quantify potential environmental impacts from chemicals in surface soil, sediment, and surface water at the site. Site data were used to determine environmental impacts. The CSM defines complete and significant exposure pathways and identifies assessment and measurement endpoints for each of the exposure areas (Figure 5-2). The Revision 01 ERA Report was submitted under separate cover in September 2020 (EA 2020a). The following text presents a summary of the ERA results.

7.1 POTENTIAL ECOLOGICAL EXPOSURES

The ERA concluded that there are COPCs in surface soil, sediment, and surface water that required further evaluation in the Baseline Risk Assessment Problem Formulation (BRAPF). The results of the ERA represent maximum estimates of risk and are not necessarily representative of population-wide risks; therefore, the BRAPF includes a refinement of risk estimates using more site-specific assumptions and information. A refined assessment of risks was performed to provide a more site-specific and realistic risk characterization for the site.

The refinement of risk estimates and weight of evidence evaluation presented in the BRAPF built upon the results of the ERA to conclude that concentrations of some metals in surficial soil, primarily in the Process Area, present the greatest potential for adverse effects to ecological receptors at the site. The following presents potential risks based on receptors:

7.1.1 Terrestrial Plants

Based on the refined assessment as part of the BRAPF, the findings of the ERA are that COPCs in surface soil may pose risk to terrestrial plants in the Process Area (antimony, chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc) and in the Open Area (chromium, hexavalent chromium, and mercury).

7.1.2 Soil Invertebrates

Based on the refined assessment as part of the BRAPF, the findings of the ERA are that COPCs in surface soil may pose risk to soil invertebrates in the Process Area (chromium, hexavalent chromium, copper, mercury, and zinc) and in the Open Area (chromium, hexavalent chromium, and mercury).

7.1.3 Terrestrial Mammals

Based on the refined assessment performed as part of the BRAPF, the findings of the ERA are that antimony, cadmium, and lead in surface soil may pose risk to terrestrial insectivorous mammals in the Process Area.

7.1.4 Terrestrial Birds

Based on the refined assessment performed as part of the BRAPF, the findings of the ERA are that lead in surface soil may pose risk to terrestrial insectivorous birds and terrestrial herbivorous birds in the Process Area.

7.1.5 Aquatic and Benthic Communities

Based on the refined assessment performed as part of the BRAPF, no COPCs were found that pose potential risks to aquatic or benthic communities.

7.1.6 Aquatic Wildlife

Based on the refined assessment performed as part of the BRAPF, no COPCs were found that pose potential risks to aquatic mammals or aquatic birds.

7.2 SUMMARY OF POTENTIAL ECOLOGICAL EXPOSURES

As noted in the ERA, a low weight of evidence is given to potential risks to lower trophic level receptors. Therefore, assessment of risk focused on the upper trophic level receptors. Based on the above conclusions, the following COPCs in surface soil in the Process Area may require considerations for risk management:

- Antimony
- Cadmium
- Lead.

The below table summarizes the COPCs and associated receptors to be considered for risk management.

Receptor	Media	COPCs Contributing Significantly to Results	95UCLM HQ
Terrestrial Insectivorous Mammals	Surface Soil - Process Area	Antimony	4
Terrestrial Insectivorous Mammals	Surface Soil - Process Area	Cadmium	3
Terrestrial Insectivorous Mammals	Surface Soil - Process Area	Lead	10
Terrestrial Insectivorous Birds	Surface Soil - Process Area	Lead	4
Terrestrial Herbivorous Birds	Surface Soil - Process Area	Lead	4

NOTE:
COPC - Contaminant of Potential Concern
HQ - Hazard Quotient
95UCLM - 95 percent upper confidence limit of the mean

Antimony was detected in approximately half the samples collected in the Process Area. The maximum concentration is 102 mg/kg and the 95 percent upper confidence limit of the mean (95UCLM) is 10.4 mg/kg. It was not detected in background samples. Antimony was found to present potential risks to plants and herbivorous and insectivorous mammals. The Ecological Soil SL for mammals for antimony is 0.27 mg/kg, which is lower than all of the detection limits, which range from 0.37 to 33 mg/kg in the site dataset and 0.512 to 1.6 mg/kg in the background dataset. Based on the low Ecological Soil SL and detection limits that failed to meet it, there is some uncertainty with the antimony data. Antimony surface soil concentrations are illustrated in Figure 7-1.

Cadmium was detected in all but 2 samples collected in the Process Area. The maximum concentration is 176 mg/kg and the 95UCLM is 33 mg/kg. It was detected in 4 out of 20 background samples with a maximum of 0.8 mg/kg. Cadmium was found to present potential risks to insectivorous mammals. The Ecological Soil SL for mammals for cadmium is 0.36 mg/kg, which is lower than most detection limits. Detection limits range from 0.6 to 0.65 mg/kg in the site data and 0.182 to 0.8 mg/kg in the background data. Based on the low Ecological Soil SL and detection limits that failed to meet it, there is some uncertainty with the antimony data. Cadmium surface soil concentrations are illustrated in Figure 7-2.

Lead was detected in all of the samples collected in the Process Area. The maximum concentration is 24,500 mg/kg and the 95UCLM is 2,280 mg/kg. It was detected in all of the background samples with a maximum concentration of 77 mg/kg. Lead was found to present potential risk to plants, insectivorous mammals, and insectivorous birds. The Ecological Soil SL for mammals for lead is 56 mg/kg; for birds it is 11 mg/kg. Lead surface soil concentrations are illustrated in Figure 7-3.

Due to the fact that the Ecological Soil SLs are lower than detection limits for antimony and cadmium, the concentrations are compared to human health screening values on Figures 7-1 through 7-3 for display purposes. The highest surface soil concentrations of antimony, cadmium, and lead are located south of the HWTB and north of the Electroplating Facility adjacent to the sumps. Ecological Preliminary PRGs for surface soil will be derived during the FS. No potential risks have been identified to aquatic receptors. Deriving specific risk management strategies were beyond the scope of the ERA and will be considered a Scientific/Management Decision Point.

8. RESULTS AND CONCLUSIONS

The purpose of the RI Report is to: (1) summarize site information and data, (2) identify potential source areas, (3) define the nature and extent of contamination, (4) evaluate contaminant migration pathways, and (5) present a summary of Human Health and Ecological risks. These elements also form the CSM. In addition, the Human Health risk assessment and Ecological risk evaluation conclusions are presented along with data gaps, where additional characterization is recommended.

8.1 SITE DATA COLLECTION

Surface and subsurface soil samples, surface water samples, sediment samples, and groundwater samples were collected for the RI in 2 phases, which occurred in May 2019 and January and February 2020. In addition, soil data collected by EPA as part of the 2016 RA (Weston 2016), and soil, sediment and surface water data collected by TCEQ for the SI Report (TCEQ 2017) were also carried forward for further evaluation under the RI and risk assessments.

8.2 POTENTIAL SOURCE AREAS

The following sources have been identified for the site: (1) contaminated soil currently located underneath and surrounding the facility buildings and (2) underground sumps located inside the main facility building. Wastes containerized within the buildings served as previous sources but have been removed. Based on the findings of the RI, some of the highest concentrations of site-related COPCs are located just to the east and south of the HWTB, which is situated in the southeast portion of the Process Area. Within this area, there is also an area where sandblasting waste material was discarded and accumulated on the ground surface to the southeast of the HWTB. This area of highly impacted soil is also situated on adjacent portions of the Open Area.

8.3 NATURE AND EXTENT OF CONTAMINATION

Chemicals and metals that were detected in soil, sediment, surface water, and groundwater were screened and evaluated as part of the HHRA and ERA, which identified COPCs for surface soil, subsurface soil, surface water, and groundwater.

<u>Surface Soil</u>

The HHRA identified hexavalent chromium, lead, mercury, and arsenic as Human Health COPCs for surface soil at the site. The ERA identified antimony, cadmium, chromium, hexavalent chromium, copper, lead, mercury, and nickel, as Ecological COPCs for the Process Area surface soil, and chromium, hexavalent chromium, and mercury as Ecological COPCs for the Open Area surface soil.

Arsenic, chromium, hexavalent chromium, lead, and mercury were used for nature and extent discussions presenting in Section 5 of this report. These represent all of the Human Health COPCs for surface soil, as well as those that are Ecological COPCs for both the Process Area and Open Area surface soil. In the case of the remaining Ecological COPCs (antimony,

cadmium, copper, and nickel), they were identified for the Process Area surface soil and are collocated with the selected COPCs used for the below nature and extent discussions.

As discussed in Section 5 of this report, there were widespread surface soil exceedances of the metals identified as COPCs, with the highest detections occurring within the Process Area around the around the footprint of the main building, and to the east and south of the HWTB, with many of the highest detections of these metals being just to the south and east of the HWTB and adjacent areas of the Open Area. The distribution of detections show that several lobes of impacted soil extend from the Process Area, northward, eastward, southeastward, and southwest ward, with the primary lobe trending to the southeast through the southeast portion of the Open Area. This distribution of impacted soil is attributed to overland flow/transport of product/waste from the Process Area and possibly impacted surface soil during large rain events.

Subsurface Soil

HHRA identified hexavalent chromium and arsenic as the Human Health COPCs for subsurface soil at the site. As discussed in Section 5 of this report, there were widespread exceedances of both hexavalent chromium and arsenic in the subsurface soil intervals for both the Process Area and the Open Area.

Surface Water

For surface water, the HHRA identified lead as a COPC, while the ERA identified no COPCs. Lead in surface water that exceeded the TCEQ Surface Water Quality Standards for Ingestion of Fish Only SL was detected at five of the 39 surface water samples evaluated as part of the RI and risk assessments: background surface water sample location BLSW-5 (6.9 µg/L) and nature and extent sample locations SW-03 (15.6 µg/L), SW-04 (139 µg/L), SW-09 (6.2 µg/L), SW-12 (5.1 µg/L), and SW-15 (5.7 µg/L), with SW-25 being a field duplicate for SW-09.

Sediment

For sediment, the HHRA and ERA identified no COPCs.

Groundwater

The HHRA identified hexavalent chromium, PFOS, and PFHxS as COPCs for groundwater. Dissolved and total chromium were also evaluated in the RI, due to several detections that exceeded the MCL for this metal. As illustrated on isoconcentration maps for these COPCs, the highest detections of total and dissolved chromium, and PFHxS are associated with monitoring wells installed in close proximity to the main building in the Process Area. These COPCs are also below the EPA MCL for chromium, and TCEQ PCL for PFHxS in monitoring wells installed in the Open Area. For hexavalent chromium and PFOS, the highest detections of these COPCs are also associated with the monitoring wells installed near the main building in the Process Area. However, groundwater samples collected during the RI demonstrate detections of hexavalent chromium that exceed the EPA TAP Water RSL and PFOS detections that exceed the EPA Drinking Water Health Advisory for PFOS and PFOA in side- and down gradient wells

installed in the Open Area. This is attributed to these COPCs being more mobile than the other groundwater COPCs. The distribution of COPCs in groundwater also supports that while some site-related COPCs have made it locally into the upper portion of the Austin Chalk by way of localized fractures, joints, bedding planes, etc., the majority of the groundwater plume mass occurs in the perched groundwater unit on top of the Austin Chalk.

8.4 CONTAMINANT MIGRATION PATHWAYS

The following migration pathways are present at the site:

- **Leaching to Groundwater—**As water percolates from the surface, particularly in the Process Area, through vadose zone soil to the underlying perched groundwater, it carries dissolved phase constituents. Additionally, where present, source material in contact with groundwater can leach directly to the perched groundwater. This is a complete pathway that has led to the formation of the groundwater plumes associated with the site. The TCEQ Residential Soil 0.5 acre source area $^{GW}Soil_{Ing}$ PCLs for total chromium and hexavalent chromium are 2,400 mg/kg and 28 mg/kg, respectively for class 1 and 2 groundwater resources. These PCLs will be considered once groundwater classification has been completed and during development of PRGs when the FS is being completed.

- **Groundwater Transport—**As groundwater moves downgradient through the saturated zone, it can carry dissolved phase constituents. Based on data collected during the RI, this is a complete but insignificant pathway at the site. Data supports that groundwater and surface water are in communication with each other on the east part of the site abutting Stream 5A2, which is a perennial surface water feature. Based on the potentiometric groundwater surface and distribution of COPCs in the perched groundwater zone, groundwater is migrating in a southwest and south direction away from Stream 5A2 and toward the unnamed stream. During the RI, the unnamed stream contained water only during and immediately following heavy rain events, which supports the site's groundwater is not discharging directly into this surface water feature. In addition, the distribution of site COPCs do not support a significant groundwater to surface water pathway. Hexavalent chromium, chromium are groundwater COPCs for the site, but these metals were not detected in surface water samples collected during the RI. In addition, lead in surface water was identified as possible human health COPC due to ingestion of fish; however, lead was not detected in groundwater samples collected at the site during the RI. As such, the lead detected in surface water is not site-related.

- **Overland Flow—**As water flows across the site, chemicals may be transported in stormwater to water bodies surrounding the site. This is particularly true for overland flow from the Process Area in a southeast direction through the Open area and toward the unnamed stream.

- **Air Particulate Transport—**Winds or other soil disturbances may transport chemicals from the site.

8.5 RISK ASSESSMENT CONCLUSIONS

The conclusions derived from the HHRA and ERA are presented below.

8.5.1 Soil Pathway

8.5.1.1 Human Health Risk Assessment

The HHRA (EA 2020b) identified hexavalent chromium, lead, mercury, and arsenic as Human Health COPCs for surface soil at the site. It also concluded that surface soil within the Process Area exposure area revealed carcinogenic risks above the EPA acceptable risk range for the resident. Additionally, carcinogenic risks for all other receptors (i.e., construction worker, commercial/industrial worker, adolescent trespasser) exposure to surface soil were above a cancer risk level of 10^{-5}. Non-carcinogenic hazards for the resident child exceeded an acceptable level of 1 for hexavalent chromium and mercury within the Process Area exposure area. Six sample locations (G7, E6, JSB-2, MW-1, F7, and D2) within the Process Area had hexavalent chromium concentrations above 300 mg/kg. Additionally, 24 sample locations had hexavalent chromium concentrations above 30 mg/kg within the Process Area. Subsurface soil concentrations of hexavalent chromium were significantly less than surface soil. Within the Open Area exposure area, carcinogenic risks for all receptors were within the EPA's cancer risk range.

Mercury also revealed non-carcinogenic hazards above 1 for the resident child exposure to surface soil within the Process Area. Elevated concentrations of mercury were detected to the north, east, and south of the former building. The locations of elevated mercury are co-located with elevated concentrations of hexavalent chromium.

It is noted that carcinogenic risks for the resident, commercial worker, and trespasser were within the EPA cancer risk range. These risks were above the EPA point of departure of 10^{-6}. The Open Area exposure contains soil samples that were collected within and outside the EPA security fence. The security fence is in good condition and limits trespassers or other potential receptors. Therefore, the results within the Open Area were evaluated to assess the samples within and outside the EPA security fence. For carcinogenic risks, the primary contributor is hexavalent chromium for both the Process Area and the Open Area. Additionally, mercury had maximum detected concentrations greater than ten times the EPA residential soil RSL for both exposure areas, which would equate to an approximately noncancer hazard greater than 1.

The maximum detected concentration of hexavalent chromium for the Open Area was within the EPA security fence. The 95UCLM for hexavalent chromium within the EPA security fence is 4.5 mg/kg and outside the EPA security fence is 1.6 mg/kg. The 95UCLM outside of the chain-link fence would result in an approximate risk level of $5x10^{-6}$, when compared to the EPA Residential Soil RSL of 0.3 mg/kg. The highest concentrations of hexavalent chromium are within the EPA security fence within both the Open Area and Process Areas. For mercury within the Open Area, the maximum detected concentration was within the EPA security fence of the Open Area. Therefore, concentrations of hexavalent chromium and mercury were lower within samples located outside the EPA security fence and would not result in human health concerns for any receptor contact with soil.

For the Process Area surface soil, the models indicate mean blood-lead levels of approximately 8 µg/dL. The IEUBK model indicates significantly greater than 5% of the population exceed the reference level, which reveals that lead in surface soil is a potential concern for resident children based upon the average concentration within the Process Area exposure area. For the adult lead model, the reference blood-lead level had greater than 5% of the population exceeding, except at the 10 µg/dL reference blood-lead level. Twenty-three sample results exceed the EPA Residential Soil RSL of 400 mg/kg. Eighteen of these sample locations had lead concentrations greater than 1,000 mg/kg. This reveals lead is a concern within the Process Area.

8.5.1.2 Ecological Risk Assessment

The refinement of risk estimates and weight of evidence evaluation presented in the BRAPF built upon the results of the ERA to conclude the following:

- **Terrestrial Plants:** Based on the refined assessment as part of the BRAPF, the findings of the ERA are that COPCs in surface soil may pose risk to terrestrial plants in the Process Area (antimony, chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc) and in the Open Area (chromium, hexavalent chromium, and mercury).

- **Soil Invertebrates:** Based on the refined assessment as part of the BRAPF, the findings of the ERA are that COPCs in surface soil may pose risk to soil invertebrates in the Process Area (chromium, hexavalent chromium, copper, mercury, and zinc) and in the Open Area (chromium, hexavalent chromium, and mercury).

- **Terrestrial Mammals:** Based on the refined assessment performed as part of the BRAPF, the findings of the ERA are that antimony, cadmium, and lead in surface soil may pose risk to terrestrial insectivorous mammals in the Process Area.

- **Terrestrial Birds:** Based on the refined assessment performed as part of the BRAPF, the findings of the ERA are that lead in surface soil may pose risk to terrestrial insectivorous birds and terrestrial herbivorous birds in the Process Area.

As noted in the ERA, a low weight of evidence is given to potential risks to lower trophic level receptors. Therefore, assessment of risk focused on the upper trophic level receptors. Based on the above conclusions, antimony, cadmium, and lead in surface soil in the Process Area may require considerations for risk management. The highest surface soil concentrations of antimony, cadmium, and lead are located south of the HWTB and north of the Electroplating Facility adjacent to the sumps. Ecological PRGs for surface soil will be derived during the FS.

8.5.2 Groundwater Pathway

The HHRA concluded that concentrations of hexavalent chromium revealed significant risk concerns for the perched groundwater zone as a tap water supply. Eleven of the perched groundwater zone samples revealed hexavalent chromium concentrations 2 orders of magnitude higher than the EPA tap water RSL of 0.035 µg/L. These sample locations include MW-10, MW-09, WW-01, MW-01, ACMW-04, WW-02, MW-05, and MW-07. Four of these locations

(MW-10, MW-09, WW-01, MW-01) revealed hexavalent chromium concentrations 4 orders of magnitude higher than the tap water RSL. Six monitoring wells exceeded the EPA maximum contaminant level of 100 µg/L.

PFHxS and PFOS in groundwater revealed non-carcinogenic hazards above the acceptable level of 1 for the resident child, resident adult, and commercial/industrial worker. The only detections of PFHxS above the risk-based screening criteria, set forth by TCEQ, were within MW-01. This well is located along the southeast corner of the former building. This well also had hexavalent chromium detections of 336 µg/L. For PFOS, EPA has set forth a Drinking Water Health Advisory for PFOS and PFOA combined of 0.07 µg/L. Concentrations of PFOA do not contribute to overall combined PFOS/PFOA concentrations, so only PFOS is discussed in relation to the Drinking Water Health Advisory. PFOS was detected above the advisory level in 9 out of 14 wells sampled: MW-01, MW-10, MW-09, MW-06, ACMW-04, MW-05, MW-07, MW-04, and WW-01.

Potable water is supplied to the site and the surrounding area by the City of Dallas.

8.5.3 Surface Water Pathway

8.5.3.1 Human Health Risk Assessment

The HHRA concluded lead was identified as a COPC in surface water based upon a comparison to the EPA action level for lead. The mean detected concentration in surface water was 14.7 µg/L. The mean concentration is slightly lower than the action level. It was noted that the total lead detections in surface water were highly influenced by the maximum detected concentration of 139 µg/L at sample location SW-04. This sample location also had the maximum detected concentration of total metals in surface water. Filtered surface water samples were not collected from this location. The downgradient surface water locations (SW-05 and SW-06) from this location had total metals concentrations more than 10 times lower than SW-04. For instance, the total lead concentration at SW-05 (2.4 µg/L) and SW-06 (2.5 µg/L) would not exceed the EPA action level or the TCEQ surface water risk-based exposure limit for ingestion of fish (3.83 µg/L). Surface water sample location SW-04 is located within the footprint of small pond, which has been silted in and has become wetland/marsh area which limits human contact, and fish of edible size were not observed in this location. Therefore, sample location SW-04 is not expected to cause a concern for human health.

8.5.3.2 Ecological Risk Assessment

The refinement of risk estimates and weight of evidence evaluation presented in the BRAPF built upon the results of the ERA to conclude the following:

- **Aquatic and Benthic Communities:** Based on the refined assessment performed as part of the BRAPF, no COPCs were found that pose potential risks to aquatic or benthic communities.

- **Aquatic Wildlife:** Based on the refined assessment performed as part of the BRAPF, no COPCs were found that pose potential risks to aquatic mammals or aquatic birds.

8.5.4 Sediment Pathway

8.5.4.1 Human Health Risk Assessment

The HHRA did not identify any concerns for receptors' exposure to sediment.

8.5.4.2 Ecological Risk Assessment

The refinement of risk estimates and weight of evidence evaluation presented in the BRAPF built upon the results of the ERA to conclude the following:

- **Aquatic and Benthic Communities:** Based on the refined assessment performed as part of the BRAPF, no COPCs were found that pose potential risks to aquatic or benthic communities.

- **Aquatic Wildlife:** Based on the refined assessment performed as part of the BRAPF, no COPCs were found that pose potential risks to aquatic mammals or aquatic birds.

8.6 DATA GAPS AND RECOMMENDATIONS

RIs have inherent uncertainty. Although the level of uncertainty varies from area to area, the acceptable level of uncertainty is often individualistic and subject to interpretation. Essentially, there is a delicate balance between expending additional effort to characterize the area and the necessity for additional data to reduce uncertainty.

Data gaps and recommendations for further characterization were identified based on the results of the RI. These recommendations will facilitate a better understanding of the site and can be conducted during future investigations or in conjunction with implementation of remedial actions:

- There is no subsurface arsenic data east of Stream 5A2 that can be used to determine the eastward lateral extent of arsenic in the 10 to 15 ft bgs interval. This is a potential data gap that will need to be addressed during the FS or RD if it is determined that arsenic at this depth interval will need to be addressed as part of the Remedial Action.

- There are no offsite monitoring wells to the west and south of the site. As such, the lateral extent of the downgradient portion of the hexavalent groundwater plume could not be accurately determined. This is a potential data gap that will need to be addressed during the FS or RD if it is determined that the perched groundwater should be treated as a drinking water resource and remediated to the EPA Tap Water RSL of 0.035 µg/L.

- There is not a monitoring well west of MW-10, which exhibited the highest detections of dissolved and total chromium. Because the west extent of the dissolved and total chromium plume(s) have not been defined, this is a data gap that will need to be addressed during the FS or RD in order to complete delineation of the dissolved and total chromium plume(s) west of MW-10 to its MCL of 100 µg/L.

- There are no offsite monitoring wells to the west and south of the site. As with the hexavalent chromium plume, the lateral extent of the downgradient portion of the PFOS groundwater plume could not be accurately determined. This is a potential data gap that will need to be addressed during the FS or RD if it is determined that the perched groundwater should be treated as a drinking water resource and remediated to the EPA Drinking Water Health Advisory for PFOS and PFOA combined of 0.07 µg/L.

- During finalization of the RI Report, TCEQ identified several other items that represent potential data gaps that will be considered for possible further evaluation during the FS. These items are presented in the Response to Comments for the RI Report (Appendix H).

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Tables

Table 2-1 RI Surface and Subsurface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
BACKGROUND SURFACE SOIL SAMPLES															
BSB-01	BSB-1-0.0-0.5		Surface Soil	Background	01/20/2020					X		X	X		
BSB-01	BSB-1-0.5-2.0		Surface Soil	Background	01/20/2020					X		X	X		
BSB-02	BSB-2-0.0-0.5		Surface Soil	Background	01/21/2020					X		X	X		
BSB-02	BSB-2-0.5-2.0		Surface Soil	Background	01/21/2020					X		X	X		
BSB-02	BSB-2-2.0-5.0		Surface Soil	Background	01/21/2020					X		X	X		
BSB-03	BSB-3-0.0-0.5		Surface Soil	Background	01/20/2020					X		X	X		
BSB-03	BSB-3-0.5-2.0	BSB-3-0.5-2.0-D	Surface Soil	Background	01/20/2020					X		X	X		
BSB-04	BSB-4-0.0-0.5		Surface Soil	Background	01/21/2020					X		X	X		
BSB-04	BSB-4-0.5-2.0	BSB-4-0.5-2.0-D	Surface Soil	Background	01/21/2020					X		X	X		
BSB-05	BSB-5-0.0-0.5		Surface Soil	Background	01/21/2020					X		X	X		
BSB-05	BSB-5-0.5-2.0		Surface Soil	Background	01/21/2020					X		X	X		
BSB-06	BSB-6-0.0-0.5		Surface Soil	Background	01/20/2020					X		X	X		
BSB-06	BSB-6-0.5-2.0		Surface Soil	Background	01/20/2020					X		X	X		
BSB-07	BSB-7-0.0-0.5		Surface Soil	Background	01/21/2020					X		X	X		
BSB-07	BSB-7-0.5-2.0		Surface Soil	Background	01/21/2020					X		X	X		
BSB-08	BSB-8-0.0-0.5		Surface Soil	Background	01/21/2020					X		X	X		
BSB-08	BSB-8-0.5-2.0	BSB-8-0.5-2.0-D	Surface Soil	Background	01/21/2020					X		X	X		
BACKGROUND SUBSURFACE SOIL SAMPLES															
BSB-01	BSB-1-13.0-15.0		Subsurface Soil	Background	01/20/2020							X	X		
BSB-01	BSB-1-2.0-5.0		Subsurface Soil	Background	01/20/2020					X		X	X		
BSB-01	BSB-1-5.0-10.0		Subsurface Soil	Background	01/20/2020							X	X		
BSB-02	BSB-2-13.0-15.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-02	BSB-2-5.0-10.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-03	BSB-3-13.0-15.0		Subsurface Soil	Background	01/20/2020							X	X		
BSB-03	BSB-3-2.0-5.0		Subsurface Soil	Background	01/20/2020					X		X	X		
BSB-03	BSB-3-5.0-10.0		Subsurface Soil	Background	01/20/2020							X	X		
BSB-04	BSB-4-13.0-15.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-04	BSB-4-2.0-5.0		Subsurface Soil	Background	01/21/2020					X		X	X		
BSB-04	BSB-4-5.0-10.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-05	BSB-5-13.0-15.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-05	BSB-5-2.0-5.0	BSB-5-2.0-5.0-D	Subsurface Soil	Background	01/21/2020					X		X	X		
BSB-05	BSB-5-5.0-10.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-06	BSB-6-13.0-15.0	BSB-6-13.0-15.0-D	Subsurface Soil	Background	01/20/2020							X	X		
BSB-06	BSB-6-2.0-5.0		Subsurface Soil	Background	01/20/2020				X	X		X	X		X
BSB-06	BSB-6-5.0-10.0		Subsurface Soil	Background	01/20/2020							X	X		
BSB-07	BSB-7-13.0-15.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-07	BSB-7-2.0-5.0		Subsurface Soil	Background	01/21/2020					X		X	X		
BSB-07	BSB-7-5.0-10.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-08	BSB-8-13.0-15.0		Subsurface Soil	Background	01/21/2020							X	X		
BSB-08	BSB-8-2.0-5.0		Subsurface Soil	Background	01/21/2020					X		X	X		
BSB-08	BSB-8-5.0-10.0		Subsurface Soil	Background	01/21/2020							X	X		
PROCESS AREA SURFACE SOIL SAMPLES															
ACMW-01	ACMW-1-0.0-0.5		Surface Soil	Process Area	01/15/2020				X			X	X		X
ACMW-01	ACMW-1-0.5-2.0		Surface Soil	Process Area	01/15/2020							X	X		
ACMW-02	ACMW-2-0.0-0.5		Surface Soil	Process Area	01/15/2020							X	X		
ACMW-02	ACMW-2-0.5-2.0	ACMW-2-0.5-2.0-D	Surface Soil	Process Area	01/15/2020							X	X		
ACMW-04	ACMW-4-0.0-0.5		Surface Soil	Process Area	01/15/2020							X	X		
ACMW-04	ACMW-4-0.5-2.0		Surface Soil	Process Area	01/15/2020							X	X		
DSB-08	DSB-8-0.0-0.5	DSB-8-0.0-0.5-D	Surface Soil	Process Area	05/16/2019							X	X	X	
DSB-08	DSB-8-0.5-2.0	DSB-8-0.5-2.0-D	Surface Soil	Process Area	05/16/2019	X	X	X	X	X	X	X	X	X	X
JSB-02	JSB-2-0.0-0.5	JSB-2-0.0-0.5-D	Surface Soil	Process Area	05/16/2019							X	X	X	
JSB-02	JSB-2-0.5-2.0	JSB-2-0.5-2.0-D	Surface Soil	Process Area	05/16/2019							X	X	X	
JSB-04	JSB-4-0.0-0.5		Surface Soil	Process Area	05/13/2019							X	X	X	
JSB-04	JSB-4-0.5-2.0		Surface Soil	Process Area	05/13/2019							X	X	X	
JSB-06	JSB-6-0.0-0.5		Surface Soil	Process Area	01/16/2020							X	X		
JSB-06	JSB-6-0.5-2.0		Surface Soil	Process Area	01/16/2020							X	X		
JSB-09	JSB-9-0.0-0.5		Surface Soil	Process Area	01/14/2020				X			X	X		X
JSB-09	JSB-9-0.5-2.0		Surface Soil	Process Area	01/14/2020							X	X		

Table 2-1 RI Surface and Subsurface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
JSB-10	JSB-10-0.0-0.5		Surface Soil	Process Area	01/14/2020				X			X	X		X
JSB-10	JSB-10-0.5-2.0		Surface Soil	Process Area	01/14/2020							X	X		
JSB-11	JSB-11-0.0-0.5		Surface Soil	Process Area	01/15/2020							X	X		
JSB-11	JSB-11-0.5-2.0		Surface Soil	Process Area	01/15/2020					X		X	X		
MW-01	MW-1-0.0-0.5	MW-1-0-0.5-D	Surface Soil	Process Area	05/16/2019							X	X	X	
MW-01	MW-1-0.5-2.0		Surface Soil	Process Area	05/16/2019							X	X	X	
MW-09	MW-09-0.5-2.0		Surface Soil	Process Area	01/15/2020					X					X
MW-09	MW-9-0.0-0.5		Surface Soil	Process Area	01/15/2020							X	X		
MW-10	MW-10-0.0-0.5		Surface Soil	Process Area	01/16/2020							X	X		
MW-10	MW-10-0.5-2.0		Surface Soil	Process Area	01/16/2020							X	X		
PROCESS AREA SUBSURFACE SOIL SAMPLES															
ACMW-01	ACMW-1-10.0-12.0		Subsurface Soil	Process Area	01/15/2020					X		X	X		
ACMW-01	ACMW-1-2.0-5.0		Subsurface Soil	Process Area	01/15/2020							X	X		
ACMW-01	ACMW-1-28.0-30.0		Subsurface Soil	Process Area	01/22/2020							X	X		
ACMW-01	ACMW-1-5.0-10.0		Subsurface Soil	Process Area	01/15/2020							X	X		
ACMW-02	ACMW-2-10.0-12.0		Subsurface Soil	Process Area	01/15/2020					X		X	X		
ACMW-02	ACMW-2-2.0-5.0		Subsurface Soil	Process Area	01/15/2020				X			X	X		X
ACMW-02	ACMW-2-28.0-30.0	ACMW-2-28.0-30.0-D	Subsurface Soil	Process Area	01/22/2020							X	X		
ACMW-02	ACMW-2-5.0-10.0		Subsurface Soil	Process Area	01/15/2020							X	X		
ACMW-04	ACMW-04-10.0-15.0	ACMW-04-10.0-15.0-Dup	Subsurface Soil	Process Area	01/15/2020					X					
ACMW-04	ACMW-4-13.0-15.0		Subsurface Soil	Process Area	01/15/2020							X	X		
ACMW-04	ACMW-4-2.0-5.0		Subsurface Soil	Process Area	01/15/2020				X			X	X		X
ACMW-04	ACMW-4-28.0-30.0		Subsurface Soil	Process Area	01/22/2020							X	X		
ACMW-04	ACMW-4-5.0-10.0	ACMW-4-5.0-10.0-D	Subsurface Soil	Process Area	01/15/2020							X	X		
DSB-08	DSB-8-2.0-5.0	DSB-8-2.0-5.0-D	Subsurface Soil	Process Area	05/16/2019							X	X	X	
DSB-08	DSB-8-8.0-10.0	DSB-8-8.0-10.0-D	Subsurface Soil	Process Area	05/16/2019							X	X	X	
JSB-02	JSB-2-2.0-5.0	JSB-2-2.0-5.0-D	Subsurface Soil	Process Area	05/16/2019	X	X	X	X	X	X	X	X	X	X
JSB-02	JSB-2-8.0-10.0	JSB-2-8.0-10.0-D	Subsurface Soil	Process Area	05/16/2019							X	X	X	
JSB-04	JSB-4-13.0-15.0		Subsurface Soil	Process Area	05/13/2019							X	X	X	
JSB-04	JSB-4-2.0-5.0		Subsurface Soil	Process Area	05/13/2019							X	X	X	
JSB-06	JSB-6-13.0-15.0		Subsurface Soil	Process Area	01/16/2020							X	X		
JSB-06	JSB-6-2.0-5.0		Subsurface Soil	Process Area	01/16/2020							X	X		
JSB-06	JSB-6-5.0-10.0		Subsurface Soil	Process Area	01/16/2020							X	X		
JSB-09	JSB-9-12-14	JSB-9-12-14-D	Subsurface Soil	Process Area	01/14/2020							X	X		
JSB-09	JSB-9-2.0-5.0		Subsurface Soil	Process Area	01/14/2020							X	X		
JSB-09	JSB-9-5.0-10.0		Subsurface Soil	Process Area	01/14/2020							X	X		
JSB-10	JSB-10-11.0-13.0		Subsurface Soil	Process Area	01/14/2020							X	X		
JSB-10	JSB-10-2.0-5.0		Subsurface Soil	Process Area	01/14/2020							X	X		
JSB-10	JSB-10-5.0-10.0		Subsurface Soil	Process Area	01/14/2020							X	X		
JSB-11	JSB-11-11.0-13.0		Subsurface Soil	Process Area	01/15/2020					X		X	X		
JSB-11	JSB-11-2.0-5.0		Subsurface Soil	Process Area	01/15/2020					X		X	X		
JSB-11	JSB-11-5.0-10.0	JSB-11-5.0-10.0-D	Subsurface Soil	Process Area	01/15/2020					X		X	X		
MW-01	MW-1-6.0-8.0	MW-1-6.0-8.0-D	Subsurface Soil	Process Area	05/16/2019	X	X	X	X	X	X	X	X	X	X
MW-09	MW-9-0.5-2.0;		Subsurface Soil	Process Area	01/15/2020					X		X	X		
MW-09	MW-9-10.0-12.0		Subsurface Soil	Process Area	01/15/2020				X	X		X	X		X
MW-09	MW-9-2.0-5.0		Subsurface Soil	Process Area	01/15/2020							X	X		
MW-09	MW-9-5.0-10.0		Subsurface Soil	Process Area	01/15/2020					X		X	X		X
MW-10	MW-10-16.0-18.0	MW-10-16.0-18.0-D	Subsurface Soil	Process Area	01/16/2020							X	X		
MW-10	MW-10-2.0-5.0		Subsurface Soil	Process Area	01/16/2020							X	X		
MW-10	MW-10-5.0-10.0		Subsurface Soil	Process Area	01/16/2020							X	X		
OPEN AREA SURFACE SOIL SAMPLES															
ACMW-03	ACMW-3-0.0-0.5		Surface Soil	Open Area	01/15/2020							X	X		
ACMW-03	ACMW-3-0.5-2.0		Surface Soil	Open Area	01/15/2020							X	X		
DSB-01	DSB-1-0.0-0.5		Surface Soil	Open Area	05/13/2019							X	X	X	
DSB-01	DSB-1-0.5-2.0		Surface Soil	Open Area	05/13/2019							X	X	X	
DSB-02	DSB-2-0.0-0.5		Surface Soil	Open Area	05/13/2019							X	X	X	
DSB-02	DSB-2-0.5-2.0		Surface Soil	Open Area	05/13/2019							X	X	X	
DSB-03	DSB-3-0.0-0.5		Surface Soil	Open Area	05/15/2019							X	X	X	
DSB-03	DSB-3-0.5-2.0		Surface Soil	Open Area	05/15/2019	X	X	X	X	X	X	X	X	X	X

Table 2-1 RI Surface and Subsurface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
DSB-04	DSB-4-0.0-0.5		Surface Soil	Open Area	05/14/2019							X	X	X	
DSB-04	DSB-4-0.5-2.0		Surface Soil	Open Area	05/14/2019							X	X	X	
DSB-05	DSB-5-0.0-0.5		Surface Soil	Open Area	05/14/2019							X	X	X	
DSB-05	DSB-5-0.5-2.0	DSB-5-0.5-2.0-D	Surface Soil	Open Area	05/14/2019							X	X	X	
DSB-06	DSB-6-0.0-0.5		Surface Soil	Open Area	05/14/2019							X	X	X	
DSB-06	DSB-6-0.5-2.0		Surface Soil	Open Area	05/14/2019							X	X	X	
DSB-07	DSB-7-0.0-0.5		Surface Soil	Open Area	05/15/2019							X	X	X	
DSB-07	DSB-7-0.5-2.0		Surface Soil	Open Area	05/15/2019	X	X	X	X	X	X	X	X	X	X
DSB-09	DSB-9-0.0-0.5		Surface Soil	Open Area	05/13/2019							X	X	X	
DSB-09	DSB-9-0.5-2.0		Surface Soil	Open Area	05/13/2019							X	X	X	
JSB-01	JSB-1-0.0-0.5		Surface Soil	Open Area	05/13/2019							X	X	X	
JSB-01	JSB-1-0.5-2.0		Surface Soil	Open Area	05/13/2019							X	X	X	
JSB-03	JSB-3-0.0-0.5		Surface Soil	Open Area	05/13/2019							X	X	X	
JSB-03	JSB-3-0.5-2.0	JSB-3-0.5-2.0-D	Surface Soil	Open Area	05/13/2019							X	X	X	
JSB-05	JSB-5-0.0-0.5		Surface Soil	Open Area	01/16/2020							X	X		
JSB-05	JSB-5-0.5-2.0	JSB-5-0.5-2.0-D	Surface Soil	Open Area	01/16/2020							X	X		
JSB-07	JSB-7-0.0-0.5		Surface Soil	Open Area	01/13/2020							X	X		
JSB-07	JSB-7-0.5-2.0		Surface Soil	Open Area	01/13/2020				X			X	X		X
JSB-08	JSB-8-0.0-0.5		Surface Soil	Open Area	01/13/2020							X	X		
JSB-08	JSB-8-0.5-2.0		Surface Soil	Open Area	01/13/2020							X	X		
MW-02	MW-2-0.0-0.5		Surface Soil	Open Area	05/14/2019							X	X	X	
MW-02	MW-2-0.5-2.0		Surface Soil	Open Area	05/14/2019							X	X	X	
MW-03	MW-3-0.0-0.5		Surface Soil	Open Area	05/15/2019							X	X	X	
MW-03	MW-3-0.5-2.0		Surface Soil	Open Area	05/15/2019							X	X	X	
MW-04	MW-4-0.0-0.5		Surface Soil	Open Area	01/13/2020							X	X		
MW-04	MW-4-0.5-2.0		Surface Soil	Open Area	01/13/2020							X	X		
MW-05	MW-5-0.0-0.5		Surface Soil	Open Area	01/13/2020							X	X		
MW-05	MW-5-0.5-2.0	MW-5-0.5-2.0-D	Surface Soil	Open Area	01/13/2020							X	X		
MW-06	MW-6-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
MW-06	MW-6-0.5-2.0		Surface Soil	Open Area	01/14/2020				X			X	X		X
MW-07	MW-7-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
MW-07	MW-7-0.5-2.0		Surface Soil	Open Area	01/14/2020							X	X		
MW-08	MW-8-0.0-0.5		Surface Soil	Open Area	01/16/2020				X			X	X		X
MW-08	MW-8-0.5-2.0		Surface Soil	Open Area	01/16/2020							X	X		
SS-01	SS-1-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
SS-01	SS-1-0.5-2.0		Surface Soil	Open Area	01/14/2020							X	X		
SS-02	SS-2-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
SS-02	SS-2-0.5-2.0		Surface Soil	Open Area	01/14/2020							X	X		
SS-03	SS-3-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
SS-03	SS-3-0.5-2.0		Surface Soil	Open Area	01/14/2020							X	X		
SS-04	SS-4-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
SS-04	SS-4-0.5-2.0		Surface Soil	Open Area	01/14/2020				X			X	X		X
SS-05	SS-5-0.0-0.5		Surface Soil	Open Area	01/14/2020							X	X		
SS-05	SS-5-0.5-2.0		Surface Soil	Open Area	01/14/2020							X	X		
SS-06	SS-6-0.0-0.5		Surface Soil	Open Area	01/13/2020							X	X		
SS-06	SS-6-0.5-2.0		Surface Soil	Open Area	01/13/2020							X	X		
SS-07	SS-7-0.0-0.5	SS-7-0.0-0.5-D	Surface Soil	Open Area	01/15/2020							X	X		
SS-07	SS-7-0.5-2.0		Surface Soil	Open Area	01/15/2020							X	X		
SS-08[1]	SS-8-0.0-0.5	SS-8-0.0-0.5-D	Surface Soil	Open Area	01/15/2020							X	X		
SS-09[1]	SS-9-0.0-0.5	SS-9-0.0-0.5-D	Surface Soil	Open Area	01/15/2020							X	X		
OPEN AREA SUBSURFACE SOIL SAMPLES															
ACMW-03	ACMW-3-18.0-20.0		Subsurface Soil	Open Area	01/21/2020							X	X		
ACMW-03	ACMW-3-2.0-5.0		Subsurface Soil	Open Area	01/15/2020							X	X		
ACMW-03	ACMW-3-5.0-6.0		Subsurface Soil	Open Area	01/15/2020					X		X	X		
DSB-01	DSB-1-9.0-11.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
DSB-02	DSB-2-2.0-5.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
DSB-02	DSB-2-9.0-11.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
DSB-03	DSB-3-8.0-10.0		Subsurface Soil	Open Area	05/15/2019							X	X	X	

Table 2-1 RI Surface and Subsurface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
DSB-04	DSB-4-13.0-15.0		Subsurface Soil	Open Area	05/14/2019							X	X	X	
DSB-05	DSB-5-2.0-5.0		Subsurface Soil	Open Area	05/14/2019							X	X	X	
DSB-05	DSB-5-9.0-11.0		Subsurface Soil	Open Area	05/14/2019							X	X	X	
DSB-06	DSB-6-13.0-15.0		Subsurface Soil	Open Area	05/14/2019							X	X	X	
DSB-07	DSB-7-2.0-5.0		Subsurface Soil	Open Area	05/15/2019							X	X	X	
DSB-07	DSB-7-9.0-11.0		Subsurface Soil	Open Area	05/15/2019							X	X	X	
DSB-09	DSB-9-10.0-12.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
DSB-09	DSB-9-2.0-5.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
JSB-01	JSB-1-2.0-5.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
JSB-01	JSB-1-9.0-11.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
JSB-03	JSB-3-11.0-13.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
JSB-03	JSB-3-2.0-5.0		Subsurface Soil	Open Area	05/13/2019							X	X	X	
JSB-05	JSB-5-13.0-15.0		Subsurface Soil	Open Area	01/16/2020							X	X		
JSB-05	JSB-5-2.0-5.0		Subsurface Soil	Open Area	01/16/2020				X			X	X		X
JSB-05	JSB-5-5.0-10.0		Subsurface Soil	Open Area	01/16/2020							X	X		
JSB-07	JSB-7-10.0-15.0		Subsurface Soil	Open Area	01/13/2020							X	X		
JSB-07	JSB-7-2.0-5.0		Subsurface Soil	Open Area	01/13/2020							X	X		
JSB-07	JSB-7-5.0-10.0		Subsurface Soil	Open Area	01/13/2020							X	X		
JSB-08	JSB-8-10.0-15.0		Subsurface Soil	Open Area	01/13/2020							X	X		
JSB-08	JSB-8-2.0-5.0		Subsurface Soil	Open Area	01/13/2020							X	X		
JSB-08	JSB-8-5.0-10.0	JSB-8-5.0-10.0-D	Subsurface Soil	Open Area	01/13/2020							X	X		
MW-02	MW-2-14.0-16.0		Subsurface Soil	Open Area	05/14/2019							X	X	X	
MW-03	MW-3-9.0-11.0		Subsurface Soil	Open Area	05/15/2019	X	X	X	X	X	X	X	X	X	X
MW-04	MW-4-10.0-15.0		Subsurface Soil	Open Area	01/13/2020				X			X	X		X
MW-04	MW-4-2.0-5.0		Subsurface Soil	Open Area	01/13/2020							X	X		
MW-04	MW-4-5.0-10.0		Subsurface Soil	Open Area	01/13/2020							X	X		
MW-05	MW-5-2.0-5.0		Subsurface Soil	Open Area	01/13/2020							X	X		
MW-05	MW-5-5.0-10.0		Subsurface Soil	Open Area	01/13/2020							X	X		
MW-06	MW-6-17.0-19.0		Subsurface Soil	Open Area	01/14/2020							X	X		
MW-06	MW-6-2.0-5.0	MW-6-2.0-5.0-D	Subsurface Soil	Open Area	01/14/2020							X	X		
MW-06	MW-6-5.0-10.0		Subsurface Soil	Open Area	01/14/2020							X	X		
MW-07	MW-7-12.0-14.0		Subsurface Soil	Open Area	01/14/2020							X	X		
MW-07	MW-7-2.0-5.0		Subsurface Soil	Open Area	01/14/2020							X	X		
MW-07	MW-7-5.0-10.0		Subsurface Soil	Open Area	01/14/2020							X	X		
MW-08	MW-8-2.0-5.0		Subsurface Soil	Open Area	01/16/2020							X	X		
MW-08	MW-8-5.0-6.0		Subsurface Soil	Open Area	01/16/2020							X	X		

Notes:
1. Surface soil samples SS-08 and SS-09 were collected from the offsite baseball field located south of the site.
ORP = Oxidation-reduction potential.
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
SVOC = Semi-volatile organic compound.
TPH = Total petroleum hydrocarbon.
VOC = Volatile organic compound.

Table 2-2 Historical Surface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
EPA REMOVAL ASSESSMENT BACKGROUND SURFACE SOIL SAMPLES															
Background	BKG1-161013-SS-06-01		Surface Soil	Background	10/13/2016							X	X		
Background	BKG1-161013-SS-18-01		Surface Soil	Background	10/13/2016							X	X		
EPA REMOVAL ASSESSMENT PROCESS AREA SURFACE SOIL SAMPLES															
A2	A2-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
A2	A2-160412-SS-03-02		Surface Soil	Process Area	04/12/2016							X	X		
A2	A2-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
A3	A3-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
A3	A3-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
A5	A5-160922-SS-06-01		Surface Soil	Process Area	09/22/2016							X	X		
A5	A5-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
A5	A5-160922-SS-18-02		Surface Soil	Process Area	09/22/2016							X	X		
A6	A6-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
A6	A6-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
B2	B2-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
B2	B2-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
B5	B5-160922-SS-06-01		Surface Soil	Process Area	09/22/2016							X	X		
B5	B5-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
B6	B6-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
B6	B6-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
C2	C2-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
C2	C2-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		
C2	C2-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
C5	C5-160922-SS-06-01		Surface Soil	Process Area	09/22/2016							X	X		
C5	C5-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
C6	C6-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
C6	C6-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
C7	C7-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
C7	C7-160921-SS-18-01		Surface Soil	Process Area	09/21/2016							X	X		
D2	D2-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
D2	D2-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		
D2	D2-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
D5	D5-160922-SS-06-01		Surface Soil	Process Area	09/22/2016							X	X		
D5	D5-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
D5	LPW03-D5-SS-160413-01		Surface Soil	Process Area	04/13/2016							X	X		
D6	D6-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
D6	D6-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		
D6	D6-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
D7	D7-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
D7	D7-160921-SS-18-01		Surface Soil	Process Area	09/21/2016							X	X		
E2	LPW04-E2-SS-160413-01		Surface Soil	Process Area	04/13/2016							X	X		
E6	E6-160922-SS-06-01		Surface Soil	Process Area	09/22/2016							X	X		
E6	E6-160922-SS-06-02		Surface Soil	Process Area	09/22/2016							X	X		
E6	E6-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		
E6	E6-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
E6	LPW01-E6-SS-160413-01		Surface Soil	Process Area	04/13/2016							X	X		
E6	LPW01-E6-SS-160413-02		Surface Soil	Process Area	04/13/2016							X	X		
E7	E7-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
E7	E7-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		
E7	E7-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
E7	E7-160922-SS-18-02		Surface Soil	Process Area	09/22/2016							X	X		
F7	F7-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
F7	F7-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		
F7	F7-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
F7	F7-160922-SS-18-02		Surface Soil	Process Area	09/22/2016							X	X		
F7	LPW02-F7-SS-160413-01		Surface Soil	Process Area	04/13/2016							X	X		
G3	LPW05-G3-SS-160413-01		Surface Soil	Process Area	04/13/2016							X	X		
G5	G5-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
G5	G5-160922-SS-12-01		Surface Soil	Process Area	09/22/2016							X	X		

Table 2-2 Historical Surface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
G5	G5-160922-SS-18-01		Surface Soil	Process Area	09/22/2016							X	X		
G7	G7-160412-SS-03-01		Surface Soil	Process Area	04/12/2016							X	X		
G7	G7-160923-SS-12-01		Surface Soil	Process Area	09/23/2016							X	X		
G7	G7-160923-SS-18-01		Surface Soil	Process Area	09/23/2016							X	X		
EPA REMOVAL ASSESSMENT OPEN AREA SURFACE SOIL SAMPLES															
A0	A0-160920-SS-06-01		Surface Soil	Open Area	9/20/2016							X	X		
A0	A0-160920-SS-18-01		Surface Soil	Open Area	9/20/2016							X	X		
A1	A1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
A1	A1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
A10	A10-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
A10	A10-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
A7	A7-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
A7	A7-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
A8	A8-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
A8	A8-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
A9	A9-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
A9	A9-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
A9	A9-160921-SS-18-02		Surface Soil	Open Area	09/21/2016							X	X		
B0	B0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
B0	B0-160920-SS-06-02		Surface Soil	Open Area	09/20/2016							X	X		
B0	B0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
B1	B1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
B1	B1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
B10	B10-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
B10	B10-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
B7	B7-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
B7	B7-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
B8	B8-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
B8	B8-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
B9	B9-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
B9	B9-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
C0	C0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
C0	C0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
C1	C1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
C1	C1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
C10	C10-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
C10	C10-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
C8	C8-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
C8	C8-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
C9	C9-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
C9	C9-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
D0	D0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
D0	D0-160920-SS-06-02		Surface Soil	Open Area	09/20/2016							X	X		
D0	D0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
D1	D1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
D1	D1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
D10	D10-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
D10	D10-160921-SS-06-02		Surface Soil	Open Area	09/21/2016							X	X		
D10	D10-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
E0	E0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
E0	E0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
E1	E1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
E1	E1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
E10	E10-160923-SS-06-01		Surface Soil	Open Area	09/23/2016							X	X		
E10	E10-160923-SS-18-01		Surface Soil	Open Area	09/23/2016							X	X		
E9	E9-160923-SS-06-01		Surface Soil	Open Area	09/23/2016							X	X		
E9	E9-160923-SS-18-01		Surface Soil	Open Area	09/23/2016							X	X		
F0	F0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
F0	F0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		

Table 2-2 Historical Surface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
F0	F0-160920-SS-18-02		Surface Soil	Open Area	09/20/2016							X	X		
F0	G0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
F1	F1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
F1	F1-160920-SS-12-01		Surface Soil	Open Area	09/20/2016							X	X		
F1	F1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
F9	F9-160923-SS-06-01		Surface Soil	Open Area	09/23/2016							X	X		
F9	F9-160923-SS-06-02		Surface Soil	Open Area	09/23/2016							X	X		
F9	F9-160923-SS-18-01		Surface Soil	Open Area	09/23/2016							X	X		
G0	G0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
G1	G1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
G1	G1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
G6	G6-160923-SS-18-01		Surface Soil	Open Area	09/23/2016							X	X		
H0	H0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
H0	H0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
H1	H1-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
H1	H1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
H2	H2-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
H2	H2-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
H3	H3-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
H3	H3-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
H4	H4-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
H4	H4-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
H5	H5-160412-SS-03-01		Surface Soil	Open Area	04/12/2016							X	X		
H5	H5-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
I0	I0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
I0	I0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
I1	I1-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
I1	I1-160920-SS-06-02		Surface Soil	Open Area	09/20/2016							X	X		
I1	I1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
I10	I10-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
I10	I10-160921-SS-12-01		Surface Soil	Open Area	09/21/2016							X	X		
I10	I10-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
I10	I10-160921-SS-18-02		Surface Soil	Open Area	09/21/2016							X	X		
I2	I2-160921-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
I2	I2-160921-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
I3	I3-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
I3	I3-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
I4	I4-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
I4	I4-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
I5	I5-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
I5	I5-160921-SS-06-02		Surface Soil	Open Area	09/21/2016							X	X		
I5	I5-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
I6	I6-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
I6	I6-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
J0	J0-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
J0	J0-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
J1	J1-160920-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
J1	J1-160920-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
J10	J10-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J10	J10-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
J10	J10-160921-SS-18-02		Surface Soil	Open Area	09/21/2016							X	X		
J2	J2-160921-SS-06-01		Surface Soil	Open Area	09/20/2016							X	X		
J2	J2-160921-SS-18-01		Surface Soil	Open Area	09/20/2016							X	X		
J3	J3-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J3	J3-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
J4	J4-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J4	J4-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
J5	J5-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J5	J5-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		

Table 2-2 Historical Surface Soil Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Matrix	Exposure Area	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	Hexavalent Chromium	Cyanide	ORP
J6	J6-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J6	J6-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
J8	J8-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J8	J8-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
J9	J9-160921-SS-06-01		Surface Soil	Open Area	09/21/2016							X	X		
J9	J9-160921-SS-18-01		Surface Soil	Open Area	09/21/2016							X	X		
TCEQ SITE INSPECTION BACKGROUND SURFACE SOIL SAMPLES															
SO-01	SO-01		Surface Soil	Background	07/20/2016							X		X	
SO-02	SO-02		Surface Soil	Background	07/20/2016							X		X	
TCEQ SITE INSPECTION PROCESS AREA SURFACE SOIL SAMPLES															
SO-03	SO-03		Surface Soil	Process Area	07/20/2016							X		X	
SO-04	SO-04		Surface Soil	Process Area	07/20/2016							X		X	
SO-05	SO-05		Surface Soil	Process Area	07/20/2016							X		X	
SO-08	SO-08	Duplicate for SO-03	Surface Soil	Process Area	07/20/2016							X		X	
TCEQ SITE INSPECTION OPEN AREA SURFACE SOIL SAMPLES															
SO-06	SO-06		Surface Soil	Open Area	07/19/2016							X		X	
SO-07	SO-07		Surface Soil	Open Area	07/20/2016							X		X	

Notes:
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
ORP = Oxidation-reduction potential.
SVOC = Semi-volatile organic compound.
TPH = Total petroleum hydrocarbon.
VOC = Volatile organic compound.

Table 2-3 RI Sediment Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	AVS/SEM	TOC	ORP	Hexavalent Chromium	Cyanide
RI SEDIMENT SAMPLES															
LSED-01	LSED-1-0.0-0.5		5/15/2019	X	X	X	X	X	X	X	X	X	X	X	X
LSED-02	LSED-2-0.0-0.5		5/14/2019							X				X	X
LSED-03	LSED-3-0.0-0.5	LSED-3-0.0-0.5-D	5/16/2019							X				X	X
LSED-04	LSED-4-0.0-0.5		5/16/2019							X				X	X
LSED-05	LSED-5-0.0-0.5		5/16/2019							X				X	X
LSED-06	LSED-6-0.0-0.5		5/16/2019							X				X	X
LSED-07	LSED-7-0.0-0.5		5/16/2019							X				X	X
LSED-08	LSED-8-0.0-0.5		5/16/2019							X				X	X
LSED-09	LSED-9-0.0-0.5	LSED-9-0.0-0.5-D	5/15/2019	X	X	X	X	X	X	X	X	X	X	X	X
LSED-10	LSED-10-0.0-0.5		5/14/2019							X				X	X
LSED-11	LSED-11-0.0-0.5		5/14/2019							X				X	X
LSED-12	LSED-12-0.0-0.5		5/17/2019							X				X	X
LSED-15	LSED-15-0.0-0.5		5/14/2019							X				X	X
LSED-16	LSED-16-0.0-0.5	LSED-16-0.0-0.5-D	5/14/2019							X				X	X
LSED-17	LSED-17-0.0-0.5		5/13/2019							X				X	X
LSED-18	LSED-18-0.0-0.5		5/13/2019							X				X	X
LSED-19	LSED-19-0.0-0.5		5/13/2019							X				X	X
LSED-20	LSED-20-0.0-0.5		5/13/2019							X				X	X
LSED-21	LSED-21-0.0-0.5	LSED-21-0.0-0.5-D	1/13/2020							X				X	
LSED-22	LSED-22-0.0-0.5		1/13/2020							X				X	
RI BACKGROUND SEDIMENT SAMPLES															
BLSED-01	BLSED-1-0.0-0.5		1/14/2020				X			X	X	X	X	X	
BLSED-02	BLSED-2-0.0-0.5		1/20/2020							X				X	
BLSED-03	BLSED-3-0.0-0.5		1/14/2020							X				X	
BLSED-04	BLSED-4-0.0-0.5		1/20/2020							X				X	
BLSED-05	BLSED-5-0.0-0.5	BLSED-5-0.0-0.5-D	1/14/2020				X			X	X	X	X	X	
BLSED-06	BLSED-6-0.0-0.5		1/15/2020							X				X	
BLSED-07	BLSED-7-0.0-0.5		1/15/2020							X				X	
BLSED-08	BLSED-8-0.0-0.5		1/15/2020							X				X	
LSED-13	LSED-13-0.0-0.5		5/17/2019							X				X	X
LSED-14	LSED-14-0.0-0.5		5/17/2019							X				X	X

Notes:
AVS/SEM = Simultaneously extracted metals/Acid-volatile sulfide.
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
ORP = Oxidation-reduction potential.
SVOC = Semi-volatile organic compound.
TOC = Total organic carbon.
TPH = Total petroleum hydrocarbon.
VOC = Volatile organic compound.

Table 2-4 Historical Sediment Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Sample Date	VOCs	SVOCs	PCBs	pH	PFAS	TPH	Target Analyte List Metals	AVS/SEM	ORP	Hexavalent Chromium	Cyanide
TCEQ SITE INSPECTION SEDIMENT SAMPLES														
SE-01 (Background)	SE-01		7/20/2016							X				X
SE-02 (Background)	SE-02		7/20/2016							X				X
SE-03	SE-03		7/20/2016							X				X
SE-04	SE-04		7/20/2016							X				X
SE-05	SE-05		7/19/2016							X				X
SE-06	SE-06		7/21/2016							X				X
SE-07	SE-07		7/19/2016							X				X
SE-08	SE-08		7/21/2016							X				X
SE-09	SE-09		7/21/2016							X				X
SE-10	SE-10		7/19/2016							X				X
SE-11	SE-11		7/18/2016							X				X
SE-12	SE-12		7/18/2016							X				X
SE-13	SE-13		7/18/2016							X				X
SE-14	SE-14	Duplicate for SE-08	7/21/2016							X				X
SE-15	SE-15	Duplicate for SE-09	7/21/2016							X				X

Notes:
AVS/SEM = Simultaneously extracted metals/Acid-volatile sulfide.
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
ORP = Oxidation-reduction potential.
SVOC = Semi-volatile organic compound.
TPH = Total petroleum hydrocarbon.
VOC = Volatile organic compound.

Table 2-5 RI Surface Water Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Sample Date	VOCs	SVOCs	PCBs	PFAS	TPH	Hardness	Total Organic Carbon	Dissolved Organic Carbon	TDS	TSS	Alkalinity	Target Analyte List Metals (Total)	Target Analyte List Metals (Dissolved)	Hexavalent Chromium	Cyanide
RI SURFACE WATER SAMPLES																		
LSW-01	LSW-01		5/15/2019	X	X	X	X	X	X	X		X	X	X	X		X	X
LSW-01	LSW-01-F		5/15/2019													X		
LSW-02	LSW-02		5/14/2019												X		X	X
LSW-02	LSW-02-F		5/14/2019													X		
LSW-03	LSW-03	LSW-03-D	5/16/2019												X		X	X
LSW-03	LSW-03-F	LSW-03-F-D	5/16/2019													X		
LSW-04	LSW-04		5/16/2019												X		X	X
LSW-04	LSW-04-F		5/16/2019													X		
LSW-04	LSW-4	LSW-4-D	1/20/2020				X		X	X	X	X	X	X				
LSW-05	LSW-05		5/16/2019												X		X	X
LSW-05	LSW-05-F		5/16/2019													X		
LSW-06	LSW-06		5/16/2019												X		X	X
LSW-06	LSW-06-F		5/16/2019													X		
LSW-07	LSW-07		5/16/2019												X		X	X
LSW-07	LSW-07-F		5/16/2019													X		
LSW-08	LSW-08		5/16/2019												X		X	X
LSW-08	LSW-08-F		5/16/2019													X		
LSW-09	LSW-09	LSW-09-D	5/15/2019	X	X	X	X	X	X	X		X	X	X	X		X	X
LSW-09	LSW-09-F		5/15/2019													X		
LSW-10	LSW-10		5/14/2019												X		X	X
LSW-10	LSW-10-F		5/14/2019													X		
LSW-11	LSW-11		5/14/2019												X		X	X
LSW-11	LSW-11-F		5/14/2019													X		
LSW-12	LSW-12		5/17/2019												X		X	X
LSW-12	LSW-12-F		5/17/2019													X		
LSW-13	LSW-13-F		5/17/2019													X		
LSW-14	LSW-14-F		5/17/2019													X		
LSW-15	LSW-15		5/14/2019												X		X	X
LSW-15	LSW-15-F		5/14/2019													X		
LSW-16	LSW-16	LSW-16-D	5/14/2019												X		X	X
LSW-16	LSW-16-F	LSW-16-F-D	5/14/2019													X		
LSW-17	LSW-17		5/13/2019												X		X	X
LSW-17	LSW-17-F		5/13/2019													X		
LSW-18	LSW-18		5/13/2019												X		X	X
LSW-18	LSW-18-F		5/13/2019													X		
LSW-19	LSW-19		5/13/2019												X		X	X
LSW-19	LSW-19-F		5/13/2019													X		
LSW-20	LSW-20		5/13/2019												X		X	X
LSW-20	LSW-20-F		5/13/2019													X		
LSW-21	LSW-21	LSW-21-D	1/13/2020												X		X	
LSW-21	LSW-21-F	LSW-21-F-D	1/13/2020													X		
LSW-22	LSW-22		1/13/2020						X	X	X	X	X	X	X		X	
LSW-22	LSW-22-F		1/13/2020													X		
RI BACKGROUND SURFACE WATER SAMPLES																		
BLSW-01	BLSW-1		1/14/2020												X		X	
BLSW-01	BLSW-1-F		1/14/2020													X		
BLSW-02	BLSW-2		1/20/2020												X		X	

Table 2-5 RI Surface Water Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Sample Date	VOCs	SVOCs	PCBs	PFAS	TPH	Hardness	Total Organic Carbon	Dissolved Organic Carbon	TDS	TSS	Alkalinity	Target Analyte List Metals (Total)	Target Analyte List Metals (Dissolved)	Hexavalent Chromium	Cyanide
BLSW-02	BLSW-2-F		1/20/2020													X		
BLSW-03	BLSW-3	BLSW-3-D	1/14/2020						X	X	X	X	X	X	X		X	
BLSW-03	BLSW-3-F		1/14/2020													X		
BLSW-04	BLSW-4		1/20/2020												X		X	
BLSW-04	BLSW-4-F		1/20/2020													X		
BLSW-05	BLSW-5		1/20/2020												X		X	
BLSW-05	BLSW-5-F		1/20/2020													X		
BLSW-08	BLSW-8		1/15/2020												X		X	
BLSW-08	BLSW-8-F		1/15/2020													X		
LSW-13	LSW-13		5/17/2019												X		X	X
LSW-13	LSW-13-F		5/17/2019													X		
LSW-14	LSW-14		5/17/2019												X		X	X
LSW-14	LSW-14-F		5/17/2019													X		

Notes:
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
SVOC = Semi-volatile organic compound.
TPH = Total petroleum hydrocarbon.
TDS = Total dissolved solved.
TSS = Total suspended solid.
VOC = Volatile organic compound.

Table 2-6 Historical Surface Water Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Sample Date	VOCs	SVOCs	PCBs	PFAS	TPH	TDS	TSS	Alkalinity	Target Analyte List Metals (Total)	Target Analyte List Metals (Dissolved)	Hexavalent Chromium	Cyanide
TCEQ SITE INSPECTION SURFACE WATER SAMPLES															
SW-01 (Background)	SW-01		7/20/2016									X			X
SW-03	SW-03		7/20/2016									X			X
SW-04	SW-04		7/20/2016									X			X
SW-05	SW-05		7/19/2016									X			X
SW-06	SW-06		7/19/2016									X			X
SW-07	SW-07		7/19/2016									X			X
SW-08	SW-08		7/21/2016									X			X
SW-09	SW-09		7/21/2016									X			X
SW-11	SW-11		7/18/2016									X			X
SW-12	SW-12		7/18/2016									X			X
SW-13	SW-13		7/18/2016									X			X
SW-14	SW-14	Duplicate for SW-08	7/21/2016									X			X
SW-15	SW-15	Duplicate for SW-09	7/21/2016									X			X

Notes:
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
SVOC = Semi-volatile organic compound.
TPH = Total petroleum hydrocarbon.
TDS = Total dissolved solid.
TSS = Total suspended solid.
VOC = Volatile organic compound.

Table 2-7 Groundwater Data Collection Summary

Sample Location	Sample ID	Field Duplicate Sample ID	Sample Date	VOCS	SVOCs	PCBs	PFAS	TPH	TDS	Target Analyte List Metals (total)	Target Analyte List Metals (dissolved)	Hexavalent Chromium	Cyanide
AUSTIN CHALK MONITORING WELLS													
ACMW-01	ACMW-01		2/3/2020				X			X		X	
ACMW-01	ACMW-01-F		2/3/2020								X		
ACMW-02	ACMW-02		2/3/2020				X			X		X	
ACMW-02	ACMW-02-F		2/3/2020								X		
ACMW-04	ACMW-04	ACMW-04-D	2/3/2020				X			X		X	
ACMW-04	ACMW-04-F	ACMW-04-F-D	2/3/2020								X		
PERCHED GROUNDWATER MONITORING WELLS													
MW-01	MW-01	MW-01-D	5/28/2019	X	X	X	X	X	X	X		X	X
MW-01	MW-01-F		5/28/2019								X		
MW-01	MW-01		2/4/2020				X			X		X	
MW-01	MW-01-F		2/4/2020								X		
MW-02	MW-02		5/29/2019						X	X		X	X
MW-02	MW-02-F		5/29/2019								X		
MW-02	MW-02		2/3/2020				X			X		X	
MW-02	MW-02-F		2/3/2020								X		
MW-03	MW-03		5/29/2019						X	X		X	X
MW-03	MW-03-F		5/29/2019								X		
MW-03	MW-03		2/3/2020				X			X		X	
MW-03	MW-03-F		2/3/2020								X		
MW-04	MW-04		2/3/2020				X			X		X	
MW-04	MW-04-F		2/3/2020								X		
MW-05	MW-05		2/4/2020				X			X		X	
MW-05	MW-05-F		2/4/2020								X		
MW-06	MW-06		2/4/2020				X			X		X	
MW-06	MW-06-F		2/4/2020								X		
MW-07	MW-07		2/4/2020				X			X		X	
MW-07	MW-07-F		2/4/2020								X		
MW-09	MW-09	MW-09-D	2/4/2020				X			X		X	
MW-09	MW-09-F	MW-09-F-D	2/4/2020								X		
MW-10	MW-10		2/4/2020				X			X		X	
MW-10	MW-10-F		2/4/2020								X		
ONSITE WATER WELLS/CISTERNS													
WW-01	WW-01		2/4/2020				X			X		X	
WW-01	WW-01	WW-01-D	5/28/2019						X	X		X	X
WW-01	WW-01-F		2/4/2020								X		
WW-01	WW-01-F	WW-01-F-D	5/28/2019								X		
WW-02	WW-02		2/4/2020				X			X		X	
WW-02	WW-02		5/29/2019						X	X		X	X
WW-02	WW-02-F		2/4/2020								X		
WW-02	WW-02-F		5/29/2019								X		

Notes:
PCB = Polychlorinated biphenyl.
PFAS = Per- and polyfluoroalkyl substances.
SVOC = Semi-volatile organic compound.
TPH = Total petroleum hydrocarbon.
TDS = Total dissolved solid.
VOC = Volatile organic compound.

Table 3-1 Soil Boring Summary

Sample Location	Exposure Area	Total Depth	Depth of Refusal (if Applicable)	Lithology Encountered at Boring Termination	Groundwater Encountered?	Top of Zone	Bottom of Zone	Was Chalk Bedrock Encountered?	Depth (feet below ground surface)
BSB-01	Background	15	--	Clay	No	--	--	No	--
BSB-02	Background	15	--	Clay	No	--	--	No	--
BSB-03	Background	15	--	Silty Clay	Moist to wet	12	15	No	--
BSB-04	Background	15	--	Silty Clay	No	--	--	No	--
BSB-05	Background	15	--	Clay	No	--	--	No	--
BSB-06	Background	15	--	Clay	No	--	--	No	--
BSB-07	Background	15	--	Clay	No	--	--	No	--
BSB-08	Background	15	--	Silty Clay	No	--	--	No	--
DSB-01	Open Area	11	11	Silty/Sandy Clay	Moist to wet; water in bottom of hole	8	11	Yes	11
DSB-02	Open Area	11	11	Clay	No	--	--	Yes	11
DSB-03	Open Area	10	10	Clay	No	--	--	Yes	10
DSB-04	Open Area	15	--	Clay	Wet zone	11.2	11.6	No	--
DSB-05	Open Area	11	11	Clay	No	--	--	Yes	11
DSB-06	Open Area	15	--	Clay	No	--	--	Yes	14
DSB-07	Open Area	11	11	Clay	No	--	--	Yes	11
DSB-08	Process Area	10	10	Clay	No	--	--	Yes	9.75
DSB-09	Open Area	12	12	Clay with Sand	Wet to moist	8	11.75	Yes	11.75
JSB-01	Open Area	11	11	Sandy Clay	Wet	4	9	Yes	11
JSB-02	Process Area	10	10	Clay	No	--	--	Yes	9.75
JSB-03	Open Area	13	13	Clay	No	--	--	Yes	11.75
JSB-04	Process Area	15	--	Clay	Very moist to slightly wet	10	12	No	--
JSB-05	Open Area	15	--	Clay	No	--	--	No	--
JSB-06	Process Area	15	--	Clay	Moist to very moist	12.5	15	No	--
JSB-07	Open Area	15	--	Clay	No	--	--	No	--
JSB-08	Open Area	15	--	Clay	Moist to wet	2.5	10	No	--
JSB-09	Process Area	14	--	Silty Clay	No	--	--	No	--
JSB-10	Process Area	13	13	Chalk Bedrock	Moist to wet	5	12.5	Yes	12.5
JSB-11	Process Area	13	13	Chalk Bedrock	Water noted in borehole @ 11.5 ft	11.5	12	Yes	12
MW-01	Process Area	12	12	Clay	No	--	--	Yes	12
MW-02	Open Area	25	--	Clay	No	--	--	No	--
MW-03	Open Area	20	--	Clay	No	--	--	No	--
MW-04	Open Area	15	15	Clay	Moist to wet	5	13	Yes	15
MW-05	Open Area	10	10	Clay	Moist to wet	5	8.5	Yes	10
MW-06	Open Area	20	--	Chalk Bedrock	Moist to wet	10	15	Yes	15
MW-07	Open Area	15	--	Chalk Bedrock	No	--	--	Yes	12
MW-08	Open Area	6	6	Chalk Bedrock	No	--	--	Yes	2
MW-09	Process Area	12.5	1.5	Clay	No	--	--	Yes	12.5
MW-10	Process Area	18	18	Chalk Bedrock	Moist to wet	10	17.5	Yes	17.5
ACMW-01	Process Area	30	--	Chalk Bedrock	Moist to very moist	10	12	Yes	12
ACMW-02	Process Area	30	--	Chalk Bedrock	No	--	--	Yes	12.5
ACMW-03	Open Area	20	--	Chalk Bedrock	No	--	--	Yes	2
ACMW-04	Process Area	30	--	Chalk Bedrock	No	--	--	Yes	15

NOTE:
-- = Not Applicable.
ft = Foot/feet.
NA = Not available.

Table 3-2 Monitor Well Construction Details and Hydraulic Head Data

Well ID Number	Installation Date	Well Coordinates		Well Construction				Screened Interval (ft bgs)		Filter Pack Interval (ft bgs)		Elevation Data	Groundwater Measurements		
		Northing	Easting	Diameter (inches)	Riser Height (ft)	Well Screen Length (ft)	Total Depth (TOC; ft)	Top	Bottom	Top	Bottom	TOC Elevation (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
MW-01	5/16/2019	6937699.9887	2501249.9573	2	--	7.50	12	5	12	3	12	423.56	5/28/2019	2.91	420.65
													2/4/2020	5.61	417.95
													3/3/2020	3.37	420.19
MW-02	5/14/2019	6937673.4324	2500780.3577	2	3	12.50	25	13	25	11	25	427.96	5/29/2019	5.23	422.73
													2/3/2020	5.38	422.58
													3/3/2020	5.21	422.75
MW-03	5/15/2019	6937606.2514	2500789.7810	2	3	10.00	20	10	20	8	20	424.44	5/29/2019	4.88	419.56
													2/3/2020	5.35	419.09
													3/3/2020	5.10	419.34
MW-04	1/13/2020	6937554.7247	2501323.7043	2	3	10.00	15	5	15	3	15	424.24	2/3/2020	6.71	417.53
													3/3/2020	4.69	419.55
MW-05	1/13/2020	6937363.9672	2501370.8759	2	3	5.00	10	5	10	3	10	424.79	2/4/2020	8.29	416.50
													3/3/2020	5.65	419.14
MW-06	1/14/2020	6937442.5855	2500770.7454	2	3	15.00	20	5	20	3	20	426.05	2/4/2020	9.21	416.84
													3/3/2020	7.01	419.04
MW-07	1/14/2020	6937443.9744	2500882.5610	2	3	10.00	15	5	15	3	15	426.53	2/4/2020	9.33	417.20
													3/3/2020	7.62	418.91
MW-08	1/16/2020	6937617.9919	2500979.9597	2	3	2.50	6	4	6	3	6	439.91	2/4/2020	Dry	--
													3/3/2020	Dry	--
MW-09	1/15/2020	6937381.8163	2501276.2150	2	--	7.50	13	5	13	3	13	425.05	2/4/2020	6.98	418.07
													3/3/2020	5.80	419.25
MW-10	1/16/2020	6937244.3242	2501205.2214	2	--	10.00	18	8	18	6	18	427.37	2/4/2020	9.82	417.55
													3/3/2020	8.03	419.34
ACMW-01	1/15/2020	6937443.1186	2501383.3435	2	--	10.00	30	17	27	15	27	423.45	2/3/2020	8.50	414.95
													3/3/2020	6.87	416.58
ACMW-02	1/15/2020	6937538.0226	2501041.0693	2	--	10.00	30	16	26	14	26	425.38	2/3/2020	6.49	418.89
													3/3/2020	5.02	420.36
ACMW-03	1/15/2020	6937772.3937	2501314.1550	2	3	5.00	20	10	15	8	15	440.40	2/3/2020	Dry	--
													3/3/2020	Dry	--
ACMW-04	1/15/2020	6937615.7373	2500800.9538	2	--	10.00	30	19	29	17	29	427.46	2/3/2020	9.42	418.04
													3/3/2020	7.61	419.85
WW-01	NA	6937715.7646	2502052.1452	36	2	NA	32	NA	NA	NA	NA	432.46	5/28/2019	10.79	421.67
													2/4/2020	14.15	418.31
													3/3/2020	12.22	420.24
WW-02	NA	6937899.3812	2502128.7392	36	2	NA	32	NA	NA	NA	NA	432.05	5/29/2019	10.02	422.03
													2/4/2020	13.62	418.43
													3/3/2020	11.55	420.50
WW-03	NA	6937675.4030	2500902.0780	36	2	NA	11	NA	NA	NA	NA	430.23	2/4/2020	Dry	--
													3/3/2020	9.85	420.38

Table 3-2 Monitor Well Construction Details and Hydraulic Head Data

Well ID Number	Installation Date	Well Coordinates		Well Construction				Screened Interval (ft bgs)		Filter Pack Interval (ft bgs)		Elevation Data	Groundwater Measurements		
		Northing	Easting	Diameter (inches)	Riser Height (ft)	Well Screen Length (ft)	Total Depth (TOC; ft)	Top	Bottom	Top	Bottom	TOC Elevation (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)

NOTE:
btoc = Below top of casing.
ft = Foot/feet.
msl = Mean sea level.
TOC = Top of casing.

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)											
Aluminum	7429-90-5	Surface Soil	mg/kg	2,050	25,600	JSB-4-0.5-2.0_05/13/2019	87/87	77,000	--	1,100,000	--
Antimony	7440-36-0	Surface Soil	mg/kg	0.254	102	LPW01-E6-SS-160413-01_04/13/2016	43/87	31	3.29E+00	470	--
Arsenic	7440-38-2	Surface Soil	mg/kg	2.7	14.9	C2-160412-SS-03-01_04/12/2016	82/87	0.68	2.19E+01	3	4.97E+00
Barium	7440-39-3	Surface Soil	mg/kg	38.2	558	LPW01-E6-SS-160413-01_04/13/2016	87/87	15,000	--	220,000	--
Beryllium	7440-41-7	Surface Soil	mg/kg	0.234	2.3	JSB-10-0.0-0.5_01/14/2020	81/87	160	--	2,300	--
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.194	176	JSB-11-0.0-0.5_01/15/2020	85/87	71	2.48E+00	980	--
Calcium	7440-70-2	Surface Soil	mg/kg	6,590	252,000	MW-9-10.0-12.0_01/15/2020	87/87	NS	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	11.1	13,000	LPW01-E6-SS-160413-01_04/13/2016	87/87	12,000	--	180,000	--
Cobalt	7440-48-4	Surface Soil	mg/kg	3	17.1	ACMW-2-0.5-2.0_01/15/2020	87/87	23	--	350	--
Copper	7440-50-8	Surface Soil	mg/kg	7.35	1,930	LPW03-D5-SS-160413-01_04/13/2016	87/87	3,100	--	47,000	--
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	6,960	48,800	F7-160412-SS-03-01_04/12/2016	87/87	55,000	--	820,000	--
Lead	7439-92-1	Surface Soil	mg/kg	8.3	24,500	LPW01-E6-SS-160413-01_04/13/2016	87/87	400	6.13E+01	800	3.06E+01
Magnesium	7439-95-4	Surface Soil	mg/kg	418	5,140	JSB-4-0.5-2.0_05/13/2019	79/87	NS	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	283	2,210	D5-160922-SS-18-01_09/22/2016	87/87	1,800	1.23E+00	26,000	--
Mercury	7439-97-6	Surface Soil	mg/kg	0.0184	144	JSB-4-0.0-0.5_05/13/2019	82/87	23	6.26E+00	350	--
Nickel	7440-02-0	Surface Soil	mg/kg	11.6	1,570	MW-9-0.0-0.5_01/15/2020	87/87	1,500	1.05E+00	22,000	--
Potassium	7440-09-7	Surface Soil	mg/kg	333	3,870	JSB-4-0.5-2.0_05/13/2019	87/87	NS	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.195	1.24	E7-160922-SS-12-01_09/22/2016	49/87	390	--	5,800	--
Silver	7440-22-4	Surface Soil	mg/kg	0.049	49	ACMW-1-0.0-0.5_01/15/2020	38/87	390	--	5,800	--
Sodium	7440-23-5	Surface Soil	mg/kg	23.4	422	JSB-11-0.5-2.0_01/15/2020	65/87	NS	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.101	1.15	F7-160922-SS-18-02_09/22/2016	34/87	0.78	1.47E+00	12	--
Vanadium	7440-62-2	Surface Soil	mg/kg	4.7	63	MW-9-0.5-2.0_01/15/2020	86/87	390	--	5,800	--
Zinc	7440-66-6	Surface Soil	mg/kg	24.3	1,550	C7-160412-SS-03-01_04/12/2016	87/87	23,000	--	350,000	--
Hexavalent Chromium (SW7196/SW7196A/SW7199)											
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.3	5,620	G7-160412-SS-03-01_04/12/2016	60/83	0.3	1.87E+04	6.3	8.92E+02
Cyanide (ISM02.4)											
Cyanide	57-12-5	Surface Soil	mg/kg	0.067	2.6	MW-1-0-0.5_05/16/2019	11/12	23	--	150	--
VOCs (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/1	8,100	--	36,000	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/1	0.6	--	2.7	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/1	6,700	--	28,000	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	5	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/1	3.6	--	16	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/1	230	--	1,000	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/1	0.0053	--	0.064	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/1	0.036	--	0.16	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	0.46	--	2	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/1	2.5	--	11	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/1	27,000	--	190,000	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/1	200	--	1,300	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/1	33,000	--	140,000	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/1	61,000	--	670,000	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/1	1.2	--	5.1	--
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/1	0.29	--	1.3	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/1	19	--	86	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/1	6.8	--	30	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/1	770	--	3,500	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/1	0.65	--	2.9	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/1	280	--	1,300	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/1	14,000	--	57,000	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/1	0.32	--	1.4	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/1	110	--	460	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/1	160	--	2,300	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/1	1.8	--	8.2	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/1	6,500	--	27,000	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/1	8.3	--	39	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/1	87	--	370	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/1	5.8	--	25	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/1	1,900	--	9,900	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/1	580	--	2,500	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/1	78,000	--	1,200,000	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/1	47	--	210	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/1	6,500	--	27,000	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	57	--	1,000	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/1	650	--	2,800	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/1	6,000	--	35,000	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/1	24	--	100	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/1	4,900	--	47,000	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/1	1,600	--	23,000	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/1	1.8	--	8.2	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	0.94	--	6	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/1	23,000	--	350,000	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/1	0.059	--	1.7	--
SVOCs (OLM04.2)											
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/1	47	--	200	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/1	24	--	110	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/1	1,800	--	9,300	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/1	1,800	--	9,300	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/1	2.6	--	11	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/1	18	--	73	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/1	3,100	--	47,000	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	49	--	210	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/1	190	--	2,500	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/1	1,300	--	16,000	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/1	130	--	1,600	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/1	1.7	--	7.4	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/1	0.36	--	1.5	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/1	4,800	--	60,000	--
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/1	390	--	5,800	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/1	240	--	3,000	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/1	3,200	--	41,000	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/1	630	--	8,000	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/1	3,200	--	41,000	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/1	1.2	--	5.1	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/1	5.1	--	66	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/1	2.7	--	11	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	27	--	110	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/1	3,600	--	45,000	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/1	3,600	--	45,000	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/1	7,800	--	120,000	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/1	18,000	--	230,000	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/1	2.4	--	10	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/1	170	--	820	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	21	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/1	0.11	--	2.1	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	21	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/1	1,800	--	23,000	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/1	11	--	210	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/1	290	--	1,200	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/1	190	--	2,500	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/1	0.23	--	1	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/1	39	--	160	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/1	31,000	--	400,000	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/1	110	--	2,100	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/1	0.11	--	2.1	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/1	78	--	1,200	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/1	51,000	--	660,000	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/1	630	--	8,200	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/1	2,400	--	30,000	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/1	2,400	--	30,000	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/1	0.21	--	0.96	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/1	1.2	--	5.3	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/1	1.8	--	7.5	--
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/1	1.8	--	8	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	21	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/1	570	--	2,400	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/1	2	--	8.6	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/1	5.1	--	22	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/1	0.078	--	0.33	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/1	1	--	4	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/1	18,000	--	230,000	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/1	19,000	--	250,000	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/1	1,800	--	23,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.0015	0.0015	MW-09-0.5-2.0_01/15/2020	1/3	1,300	--	16,000	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.00064	0.29	MW-09-0.5-2.0_01/15/2020	3/3	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/1	4.1	--	27	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/1	0.2	--	0.83	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/1	0.17	--	0.72	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/1	0.23	--	0.95	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/1	0.23	--	0.94	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/1	0.24	--	0.97	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/1	0.24	--	0.99	--
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	520	--	2,200	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	2,400	--	30,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	97	--	560	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)											
Aluminum	7429-90-5	Surface Soil	mg/kg	2,050	25,600	JSB-4-0.5-2.0_05/13/2019	87/87	65,000	--	620,000	--
Antimony	7440-36-0	Surface Soil	mg/kg	0.254	102	LPW01-E6-SS-160413-01_04/13/2016	43/87	15	6.80E+00	310	--
Arsenic	7440-38-2	Surface Soil	mg/kg	2.7	14.9	C2-160412-SS-03-01_04/12/2016	82/87	24	--	200	--
Barium	7440-39-3	Surface Soil	mg/kg	38.2	558	LPW01-E6-SS-160413-01_04/13/2016	87/87	8,100	--	120,000	--
Beryllium	7440-41-7	Surface Soil	mg/kg	0.234	2.3	JSB-10-0.0-0.5_01/14/2020	81/87	38	--	250	--
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/3	37,000	--	410,000	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.194	176	JSB-11-0.0-0.5_01/15/2020	85/87	52	3.38E+00	810	--
Calcium	7440-70-2	Surface Soil	mg/kg	6,590	252,000	MW-9-10.0-12.0_01/15/2020	87/87	NS	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	11.1	13,000	LPW01-E6-SS-160413-01_04/13/2016	87/87	33,000	--	120,000	--
Cobalt	7440-48-4	Surface Soil	mg/kg	3	17.1	ACMW-2-0.5-2.0_01/15/2020	87/87	680	--	6,300	--
Copper	7440-50-8	Surface Soil	mg/kg	7.35	1,930	LPW03-D5-SS-160413-01_04/13/2016	87/87	1,300	1.48E+00	94,000	--
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	6,960	48,800	F7-160412-SS-03-01_04/12/2016	87/87	NS	--	NS	--
Lead	7439-92-1	Surface Soil	mg/kg	8.3	24,500	LPW01-E6-SS-160413-01_04/13/2016	87/87	500	4.90E+01	1,600	1.53E+01
Magnesium	7439-95-4	Surface Soil	mg/kg	418	5,140	JSB-4-0.5-2.0_05/13/2019	79/87	NS	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	283	2,210	D5-160922-SS-18-01_09/22/2016	87/87	3,900	--	73,000	--
Mercury	7439-97-6	Surface Soil	mg/kg	0.0184	144	JSB-4-0.0-0.5_05/13/2019	82/87	3.6	4.00E+01	6.2	2.32E+01
Nickel	7440-02-0	Surface Soil	mg/kg	11.6	1,570	MW-9-0.0-0.5_01/15/2020	87/87	840	1.87E+00	8,800	--
Potassium	7440-09-7	Surface Soil	mg/kg	333	3,870	JSB-4-0.5-2.0_05/13/2019	87/87	NS	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.195	1.24	E7-160922-SS-12-01_09/22/2016	49/87	310	--	4,900	--
Silver	7440-22-4	Surface Soil	mg/kg	0.049	49	ACMW-1-0.0-0.5_01/15/2020	38/87	97	--	2,300	--
Sodium	7440-23-5	Surface Soil	mg/kg	23.4	422	JSB-11-0.5-2.0_01/15/2020	65/87	NS	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.101	1.15	F7-160922-SS-18-02_09/22/2016	34/87	5.3	--	65	--
Vanadium	7440-62-2	Surface Soil	mg/kg	4.7	63	MW-9-0.5-2.0_01/15/2020	86/87	76	--	620	--
Zinc	7440-66-6	Surface Soil	mg/kg	24.3	1,550	C7-160412-SS-03-01_04/12/2016	87/87	9,900	--	250,000	--
Hexavalent Chromium (SW7196/SW7196A/SW7199)											
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.3	5,620	G7-160412-SS-03-01_04/12/2016	60/83	120	4.68E+01	1,000	5.62E+00
Cyanide (ISM02.4)											
Cyanide	57-12-5	Surface Soil	mg/kg	0.067	2.6	MW-1-0-0.5_05/16/2019	11/12	45	--	370	--
VOCs (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/1	53,000	--	100,000	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/1	30	--	140	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/1	74,000	--	110,000	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/1	18	--	35	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/1	11,000	--	41,000	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	6,400	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/1	0.15	--	0.26	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/1	2.5	--	8.7	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	41	--	110	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/1	61	--	86	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/1	40,000	--	190,000	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/1	270	--	940	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/1	5,900	--	41,000	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/1	66,000	--	440,000	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/1	120	--	240	--
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/1	98	--	460	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/1	400	--	1,000	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/1	46	--	100	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/1	4,600	--	13,000	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/1	35	--	81	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/1	520	--	1,000	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/1	27,000	--	140,000	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/1	16	--	26	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/1	140	--	290	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/1	140	--	790	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/1	8	--	53	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/1	75,000	--	130,000	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/1	72	--	340	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/1	1,400	--	2,100	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/1	6,400	--	29,000	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/1	4,300	--	11,000	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/1	8,900	--	13,000	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/1	82,000	--	1,000,000	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/1	800	--	2,000	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/1	41,000	--	64,000	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	1,600	--	12,000	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/1	48,000	--	91,000	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/1	6,700	--	15,000	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/1	710	--	1,400	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/1	5,900	--	42,000	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/1	590	--	1,200	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/1	36	--	99	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	18	--	40	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/1	25,000	--	310,000	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/1	3.7	--	15	--
SVOCs (OLM04.2)											
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/1	12,000	--	85,000	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/1	120	--	200	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/1	720	--	1,100	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/1	120	--	170	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/1	250	--	1,200	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/1	150	--	600	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/1	51	--	150	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/1	6,700	--	68,000	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	67	--	680	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/1	200	--	2,000	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/1	1,300	--	14,000	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/1	130	--	1,400	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/1	6.9	--	28	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/1	6.9	--	28	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/1	5,000	--	50,000	--
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/1	410	--	5,100	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/1	250	--	2,500	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/1	3,300	--	34,000	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/1	14	--	50	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/1	130	--	1,400	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/1	330	--	3,400	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/1	10	--	42	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	15	--	59	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/1	6.7	--	68	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	0.28	--	1.2	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/1	330	--	3,400	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/1	23	--	95	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/1	0.16	--	0.98	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	220	--	950	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/1	130	--	1,400	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/1	3,000	--	37,000	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/1	3,800	--	37,000	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/1	6,700	--	68,000	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/1	18,000	--	190,000	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/1	21	--	86	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/1	8,200	--	100,000	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	41	--	170	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/1	4.1	--	17	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/1	42	--	170	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/1	1,800	--	19,000	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/1	420	--	1,700	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/1	6,700	--	68,000	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/1	1,600	--	10,000	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/1	3.1	--	9.1	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/1	2.2	--	4.9	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/1	43	--	560	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/1	33,000	--	340,000	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/1	230	--	950	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/1	4,100	--	17,000	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/1	4	--	17	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/1	270	--	2,700	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/1	53,000	--	550,000	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/1	53,000	--	550,000	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/1	6,200	--	68,000	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/1	640	--	6,800	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	25,000	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	25,000	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	8.7	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/1	20	--	41	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/1	14	--	20	--
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/1	46	--	450	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/1	42	--	170	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/1	4,900	--	20,000	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/1	220	--	360	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/1	66	--	110	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/1	0.4	--	1.4	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/1	0.73	--	32	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/1	1,700	--	19,000	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/1	1,800	--	2,700	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/1	1,700	--	19,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.0015	0.0015	MW-09-0.5-2.0_01/15/2020	1/3	86	--	600	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/3	180	--	1,100	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/3	0.8	--	8.2	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/3	0.99	--	9.4	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/3	0.79	--	7.5	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/3	1.5	--	16	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/3	0.25	--	2.2	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/3	0.25	--	2.6	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/3	0.76	--	6.1	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/3	0.058	--	0.087	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.00064	0.29	MW-09-0.5-2.0_01/15/2020	3/3	1.5	--	15	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/3	0.6	--	2.4	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/3	0.25	--	2.6	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/3	0.51	--	8.2	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	0.61	--	8.2	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	0.8	--	8.2	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	12,000	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	12,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	1,600	--	3,900	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]: TRRP Ecological Benchmarks [5]	Ecological Screening Levels [3]: TRRP Ecological Benchmarks Exceedance [4]	Ecological Screening Levels [3]: Lowest RAIS Screening Value [6]	Ecological Screening Levels [3]: Lowest RAIS Screening Value Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)											
Aluminum	7429-90-5	Surface Soil	mg/kg	2,050	25,600	JSB-4-0.5-2.0_05/13/2019	87/87	NS	--	50	5.12E+02
Antimony	7440-36-0	Surface Soil	mg/kg	0.254	102	LPW01-E6-SS-160413-01_04/13/2016	43/87	5	2.04E+01	0.142	7.18E+02
Arsenic	7440-38-2	Surface Soil	mg/kg	2.7	14.9	C2-160412-SS-03-01_04/12/2016	82/87	18	--	5.7	2.61E+00
Barium	7440-39-3	Surface Soil	mg/kg	38.2	558	LPW01-E6-SS-160413-01_04/13/2016	87/87	330	1.69E+00	1.04	5.37E+02
Beryllium	7440-41-7	Surface Soil	mg/kg	0.234	2.3	JSB-10-0.0-0.5_01/14/2020	81/87	10	--	1.06	2.17E+00
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.194	176	JSB-11-0.0-0.5_01/15/2020	85/87	32	5.50E+00	0.00222	7.93E+04
Calcium	7440-70-2	Surface Soil	mg/kg	6,590	252,000	MW-9-10.0-12.0_01/15/2020	87/87	NS	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	11.1	13,000	LPW01-E6-SS-160413-01_04/13/2016	87/87	0.4	3.25E+04	0.4	3.25E+04
Cobalt	7440-48-4	Surface Soil	mg/kg	3	17.1	ACMW-2-0.5-2.0_01/15/2020	87/87	NS	--	0.14	1.22E+02
Copper	7440-50-8	Surface Soil	mg/kg	7.35	1,930	LPW03-D5-SS-160413-01_04/13/2016	87/87	70	2.76E+01	5.4	3.57E+02
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	6,960	48,800	F7-160412-SS-03-01_04/12/2016	87/87	NS	--	200	2.44E+02
Lead	7439-92-1	Surface Soil	mg/kg	8.3	24,500	LPW01-E6-SS-160413-01_04/13/2016	87/87	120	2.04E+02	0.0537	4.56E+05
Magnesium	7439-95-4	Surface Soil	mg/kg	418	5,140	JSB-4-0.5-2.0_05/13/2019	79/87	NS	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	283	2,210	D5-160922-SS-18-01_09/22/2016	87/87	220	1.00E+01	100	2.21E+01
Mercury	7439-97-6	Surface Soil	mg/kg	0.0184	144	JSB-4-0.0-0.5_05/13/2019	82/87	0.1	1.44E+03	0.1	1.44E+03
Nickel	7440-02-0	Surface Soil	mg/kg	11.6	1,570	MW-9-0.0-0.5_01/15/2020	87/87	38	4.13E+01	13.6	1.15E+02
Potassium	7440-09-7	Surface Soil	mg/kg	333	3,870	JSB-4-0.5-2.0_05/13/2019	87/87	NS	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.195	1.24	E7-160922-SS-12-01_09/22/2016	49/87	0.52	2.38E+00	0.0276	4.49E+01
Silver	7440-22-4	Surface Soil	mg/kg	0.049	49	ACMW-1-0.0-0.5_01/15/2020	38/87	NS	--	2	2.45E+01
Sodium	7440-23-5	Surface Soil	mg/kg	23.4	422	JSB-11-0.5-2.0_01/15/2020	65/87	NS	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.101	1.15	F7-160922-SS-18-02_09/22/2016	34/87	NS	--	0.0569	2.02E+01
Vanadium	7440-62-2	Surface Soil	mg/kg	4.7	63	MW-9-0.5-2.0_01/15/2020	86/87	NS	--	1.59	3.96E+01
Zinc	7440-66-6	Surface Soil	mg/kg	24.3	1,550	C7-160412-SS-03-01_04/12/2016	87/87	120	1.29E+01	6.62	2.34E+02
Hexavalent Chromium (SW7196/SW7196A/SW7199)											
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.3	5,620	G7-160412-SS-03-01_04/12/2016	60/83	NS	--	0.4	1.41E+04
Cyanide (ISM02.4)											
Cyanide	57-12-5	Surface Soil	mg/kg	0.067	2.6	MW-1-0-0.5_05/16/2019	11/12	NS	--	NS	--
VOCs (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.07	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.127	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.4	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.02	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0352	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	1.23	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.02	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/1	700	--	0.002	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	89.6	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	12.6	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]	Lowest RAIS Screening Value Exceedance [4]
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	443	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	2.5	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.54	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	15.9	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.235	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0941	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.4	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/1	40	--	0.05	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.001	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	10.4	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.398	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	2.05	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	39.5	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.03	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	125	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.4	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.002	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.05	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.398	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.001	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	16.4	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
SVOCs (OLM04.2)											
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/1	20	--	0.01	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	37.7	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/1	20	--	0.01	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	19.9	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/1	4	--	4	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	10	--	9.94	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]	Lowest RAIS Screening Value Exceedance [4]
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	87.5	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0609	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/1	6	--	1.28	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/1	5	--	0.0328	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0122	--
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	3.24	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.5	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	74.1	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	1.6	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.646	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	3.16	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.144	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	7.95	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.005	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	21.9	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/1	7	--	5.12	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	20	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	682	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	5.21	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	59.8	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	119	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	148	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.239	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.302	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	23.7	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.925	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	4.73	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	18.4	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	24.8	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]	Lowest RAIS Screening Value Exceedance [4]
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/1	200	--	200	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	709	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	30	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0025	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0398	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.755	--
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.596	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	109	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	139	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0994	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/1	40	--	1.31	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.544	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/1	5	--	0.002	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/1	30	--	0.05	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.0015	0.0015	MW-09-0.5-2.0_01/15/2020	1/3	NS	--	NS	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.00064	0.29	MW-09-0.5-2.0_01/15/2020	3/3	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	40	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]	Lowest RAIS Screening Value Exceedance [4]
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels[3] EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)											
Aluminum	7429-90-5	Surface Soil	mg/kg	2,050	25,600	JSB-4-0.5-2.0_05/13/2019	87/87	NS	--	50	5.12E+02
Antimony	7440-36-0	Surface Soil	mg/kg	0.254	102	LPW01-E6-SS-160413-01_04/13/2016	43/87	0.27	3.78E+02	0.142	7.18E+02
Arsenic	7440-38-2	Surface Soil	mg/kg	2.7	14.9	C2-160412-SS-03-01_04/12/2016	82/87	18	--	5.7	2.61E+00
Barium	7440-39-3	Surface Soil	mg/kg	38.2	558	LPW01-E6-SS-160413-01_04/13/2016	87/87	330	1.69E+00	1.04	5.37E+02
Beryllium	7440-41-7	Surface Soil	mg/kg	0.234	2.3	JSB-10-0.0-0.5_01/14/2020	81/87	21	--	1.06	2.17E+00
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.194	176	JSB-11-0.0-0.5_01/15/2020	85/87	0.36	4.89E+02	0.00222	7.93E+04
Calcium	7440-70-2	Surface Soil	mg/kg	6,590	252,000	MW-9-10.0-12.0_01/15/2020	87/87	NS	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	11.1	13,000	LPW01-E6-SS-160413-01_04/13/2016	87/87	130	1.00E+02	0.4	3.25E+04
Cobalt	7440-48-4	Surface Soil	mg/kg	3	17.1	ACMW-2-0.5-2.0_01/15/2020	87/87	13	1.32E+00	0.14	1.22E+02
Copper	7440-50-8	Surface Soil	mg/kg	7.35	1,930	LPW03-D5-SS-160413-01_04/13/2016	87/87	28	6.89E+01	5.4	3.57E+02
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	6,960	48,800	F7-160412-SS-03-01_04/12/2016	87/87	NS	--	200	2.44E+02
Lead	7439-92-1	Surface Soil	mg/kg	8.3	24,500	LPW01-E6-SS-160413-01_04/13/2016	87/87	11	2.23E+03	0.0537	4.56E+05
Magnesium	7439-95-4	Surface Soil	mg/kg	418	5,140	JSB-4-0.5-2.0_05/13/2019	79/87	NS	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	283	2,210	D5-160922-SS-18-01_09/22/2016	87/87	220	1.00E+01	100	2.21E+01
Mercury	7439-97-6	Surface Soil	mg/kg	0.0184	144	JSB-4-0.0-0.5_05/13/2019	82/87	NS	--	0.1	1.44E+03
Nickel	7440-02-0	Surface Soil	mg/kg	11.6	1,570	MW-9-0.0-0.5_01/15/2020	87/87	38	4.13E+01	13.6	1.15E+02
Potassium	7440-09-7	Surface Soil	mg/kg	333	3,870	JSB-4-0.5-2.0_05/13/2019	87/87	NS	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.195	1.24	E7-160922-SS-12-01_09/22/2016	49/87	0.52	2.38E+00	0.0276	4.49E+01
Silver	7440-22-4	Surface Soil	mg/kg	0.049	49	ACMW-1-0.0-0.5_01/15/2020	38/87	4.2	1.17E+01	2	2.45E+01
Sodium	7440-23-5	Surface Soil	mg/kg	23.4	422	JSB-11-0.5-2.0_01/15/2020	65/87	NS	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.101	1.15	F7-160922-SS-18-02_09/22/2016	34/87	NS	--	0.0569	2.02E+01
Vanadium	7440-62-2	Surface Soil	mg/kg	4.7	63	MW-9-0.5-2.0_01/15/2020	86/87	7.8	8.08E+00	1.59	3.96E+01
Zinc	7440-66-6	Surface Soil	mg/kg	24.3	1,550	C7-160412-SS-03-01_04/12/2016	87/87	46	3.37E+01	6.62	2.34E+02
Hexavalent Chromium (SW7196/SW7196A/SW7199)											
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.3	5,620	G7-160412-SS-03-01_04/12/2016	60/83	130	4.32E+01	0.4	1.41E+04
Cyanide (ISM02.4)											
Cyanide	57-12-5	Surface Soil	mg/kg	0.067	2.6	MW-1-0-0.5_05/16/2019	11/12	NS	--	NS	--
VOCs (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.07	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.127	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.4	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.02	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0352	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	1.23	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.02	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.002	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	89.6	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	12.6	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels[3] EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	443	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	2.5	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.54	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	15.9	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.235	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0941	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.4	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.05	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.001	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	10.4	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.398	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	2.05	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	39.5	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.03	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	125	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.4	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.1	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.002	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.05	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.398	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.001	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	16.4	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
SVOCs (OLM04.2)											
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	37.7	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	19.9	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	4	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	9.94	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels[3] EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	87.5	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0609	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	1.28	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0328	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0122	--
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.01	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	3.24	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.5	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	74.1	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	1.6	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.646	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	3.16	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.144	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	7.95	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.005	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	21.9	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	5.12	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	20	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	29	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	0.1	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	0.1	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.239	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.302	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	23.7	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.925	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	24.8	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels[3] EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	200	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	709	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	0.1	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	29	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0025	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.0398	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.755	--
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.596	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	1.1	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	139	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	0.0994	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	1.31	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.544	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/1	2.1	--	0.002	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/1	29	--	0.1	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	0.05	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/1	1.1	--	0.1	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.0015	0.0015	MW-09-0.5-2.0_01/15/2020	1/3	NS	--	NS	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.00064	0.29	MW-09-0.5-2.0_01/15/2020	3/3	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/3	NS	--	NS	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	40	--

Table 5-1 Process Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels[3] EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)											
Aluminum	7429-90-5	Surface Soil	mg/kg	2,260	25,200	DSB-5-0.5-2.0_05/14/2019	181/181	77,000	--	1,100,000	--
Antimony	7440-36-0	Surface Soil	mg/kg	0.279	3.34	I10-160921-SS-06-01_09/21/2016	6/181	31	--	470	--
Arsenic	7440-38-2	Surface Soil	mg/kg	2.37	19.1	SS-8-0.0-0.5_01/15/2020	175/181	0.68	2.81E+01	3	6.37E+00
Barium	7440-39-3	Surface Soil	mg/kg	32.5	210	J0-160920-SS-06-01_09/20/2016	181/181	15,000	--	220,000	--
Beryllium	7440-41-7	Surface Soil	mg/kg	0.144	1.1	JSB-9-0.5-2.0_01/14/2020	171/181	160	--	2,300	--
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.122	32.4	H4-160412-SS-03-01_04/12/2016	156/181	71	--	980	--
Calcium	7440-70-2	Surface Soil	mg/kg	47,400	263,000	A0-160920-SS-18-01_09/20/2016	181/181	NS	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	4.25	5,170	I10-160921-SS-06-01_09/21/2016	181/181	12,000	--	180,000	--
Cobalt	7440-48-4	Surface Soil	mg/kg	2.03	13.4	E9-160923-SS-06-01_09/23/2016	181/181	23	--	350	--
Copper	7440-50-8	Surface Soil	mg/kg	2.43	173	I10-160921-SS-06-01_09/21/2016	181/181	3,100	--	47,000	--
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	3,130	21,300	JSB-9-0.5-2.0_01/14/2020	181/181	55,000	--	820,000	--
Lead	7439-92-1	Surface Soil	mg/kg	4.7	797	H4-160412-SS-03-01_04/12/2016	181/181	400	1.99E+00	800	--
Magnesium	7439-95-4	Surface Soil	mg/kg	700	4,400	DSB-5-0.5-2.0_05/14/2019	181/181	NS	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	213	1,590	J0-160920-SS-06-01_09/20/2016	181/181	1,800	--	26,000	--
Mercury	7439-97-6	Surface Soil	mg/kg	0.00814	46.2	I10-160921-SS-06-01_09/21/2016	172/181	23	2.01E+00	350.0	--
Nickel	7440-02-0	Surface Soil	mg/kg	5.18	282	H4-160412-SS-03-01_04/12/2016	181/181	1,500	--	22,000	--
Potassium	7440-09-7	Surface Soil	mg/kg	311	3,310	G1-160412-SS-03-01_04/12/2016	181/181	NS	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.25	1.25	C10-160921-SS-06-01_09/21/2016, A0-160920-SS-06-01_09/20/2016	111/181	390	--	5,800	--
Silver	7440-22-4	Surface Soil	mg/kg	0.047	0.823	I10-160921-SS-06-01_09/21/2016	9/181	390	--	5,800	--
Sodium	7440-23-5	Surface Soil	mg/kg	28.5	605	SS-5-0.0-0.5_01/14/2020	98/181	NS	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.073	0.28	H0-160920-SS-18-01_09/20/2016	55/181	0.78	--	12	--
Vanadium	7440-62-2	Surface Soil	mg/kg	9.02	52.1	JSB-9-0.5-2.0_01/14/2020	180/181	390	--	5,800	--
Zinc	7440-66-6	Surface Soil	mg/kg	10.4	390	I10-160921-SS-06-01_09/21/2016	181/181	23,000	--	350,000	--
Hexavalent Chromium (SW7196/SW7196A/SW7199)											
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.34	247	F1-160412-SS-03-01_04/12/2016	67/179	0.3	8.23E+02	6.3	3.92E+01
Cyanide (ISM02.4)											
Cyanide	57-12-5	Surface Soil	mg/kg	0.033	5.1	JSB-3-0.0-0.5_05/13/2019	13/26	23	--	150	--
Volatile Organic Compounds (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/2	8,100	--	36,000	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.6	--	2.7	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/2	6,700	--	28,000	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--	5	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/2	3.6	--	16	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/2	230	--	1,000	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.0053	--	0.064	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.036	--	0.16	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.46	--	2	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/2	2.5	--	11	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/2	27,000	--	190,000	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/2	200	--	1,300	--
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/2	33,000	--	140,000	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/2	61,000	--	670,000	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/2	1.2	--	5.1	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.29	--	1.3	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/2	19	--	86	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/2	6.8	--	30	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/2	770	--	3,500	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.65	--	2.9	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/2	280	--	1,300	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/2	14,000	--	57,000	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.32	--	1.4	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/2	110	--	460	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/2	160	--	2,300	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/2	1.8	--	8.2	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/2	6,500	--	27,000	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/2	8.3	--	39	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/2	87	--	370	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/2	5.8	--	25	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/2	1,900	--	9,900	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/2	580	--	2,500	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/2	78,000	--	1,200,000	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/2	47	--	210	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/2	6,500	--	27,000	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	57	--	1,000	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/2	650	--	2,800	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/2	6,000	--	35,000	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/2	24	--	100	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/2	4,900	--	47,000	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/2	1,600	--	23,000	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/2	1.8	--	8.2	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	0.94	--	6	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/2	23,000	--	350,000	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.059	--	1.7	--
Semivolatile Organic Compounds (OLM04.2)											
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/2	47	--	200	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/2	24	--	110	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/2	1,800	--	9,300	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/2	1,800	--	9,300	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/2	2.6	--	11	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/2	18	--	73	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/2	3,100	--	47,000	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	49	--	210	--
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/2	190	--	2,500	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/2	1,300	--	16,000	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/2	130	--	1,600	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/2	1.7	--	7.4	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.36	--	1.5	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/2	4,800	--	60,000	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/2	390	--	5,800	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/2	240	--	3,000	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/2	3,200	--	41,000	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/2	630	--	8,000	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/2	3,200	--	41,000	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/2	1.2	--	5.1	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/2	5	--	66	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/2	2.7	--	11	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	27	--	110	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/2	3,600	--	45,000	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/2	3,600	--	45,000	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/2	7,800	--	120,000	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/2	18,000	--	230,000	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/2	2.4	--	10	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/2	170	--	820	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--	21	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.11	--	2.1	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--	21	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/2	1,800	--	23,000	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/2	11	--	210	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/2	290	--	1,200	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/2	190	--	2,500	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.23	--	1	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/2	39	--	160	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/2	31,000	--	400,000	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/2	110	--	2,100	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.11	--	2.1	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/2	78	--	1,200	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/2	51,000	--	660,000	--
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/2	630	--	8,200	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/2	2,400	--	30,000	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/2	2,400	--	30,000	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.21	--	0.96	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/2	1.2	--	5.3	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/2	1.8	--	7.5	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/2	1.8	--	8	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--	21	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/2	570	--	2,400	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/2	2	--	8.6	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/2	5.1	--	22	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.078	--	0.33	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/2	1	--	4	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/2	18,000	--	230,000	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/2	19,000	--	250,000	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/2	1,800	--	23,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.00032	0.00041	DSB-7-0.5-2.0_05/15/2019	2/2	1,300	--	16,000	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.03	0.032	DSB-7-0.5-2.0_05/15/2019	2/2	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/2	4.1	--	27	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.2	--	0.83	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.17	--	0.72	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/2	0.23	--	0.95	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/2	0.23	--	0.94	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.24	--	0.97	--
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.24	--	0.99	--
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	520	--	2,200	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	2,400	--	30,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	97	--	560	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1]			
								Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).

Surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.

3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.

4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.

5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.

6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.

7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/

8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.

9. Chromium III values applied since no values for total chromium available.

10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.

CASRN = Chemical Abstracts Service Registry Number.

mg/kg = Milligram per kilogram.

ND = Not detected.

NS = No screening level.

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2]			
								Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)											
Aluminum	7429-90-5	Surface Soil	mg/kg	2,260	25,200	DSB-5-0.5-2.0_05/14/2019	181/181	65,000	--	620,000	--
Antimony	7440-36-0	Surface Soil	mg/kg	0.279	3.34	I10-160921-SS-06-01_09/21/2016	6/181	15	--	310	--
Arsenic	7440-38-2	Surface Soil	mg/kg	2.37	19.1	SS-8-0.0-0.5_01/15/2020	175/181	24	--	200	--
Barium	7440-39-3	Surface Soil	mg/kg	32.5	210	J0-160920-SS-06-01_09/20/2016	181/181	8,100	--	120,000	--
Beryllium	7440-41-7	Surface Soil	mg/kg	0.144	1.1	JSB-9-0.5-2.0_01/14/2020	171/181	38	--	250	--
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/2	37,000	--	410,000	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.122	32.4	H4-160412-SS-03-01_04/12/2016	156/181	52	--	810	--
Calcium	7440-70-2	Surface Soil	mg/kg	47,400	263,000	A0-160920-SS-18-01_09/20/2016	181/181	NS	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	4.25	5,170	I10-160921-SS-06-01_09/21/2016	181/181	33,000	--	120,000	--
Cobalt	7440-48-4	Surface Soil	mg/kg	2.03	13.4	E9-160923-SS-06-01_09/23/2016	181/181	680	--	6,300	--
Copper	7440-50-8	Surface Soil	mg/kg	2.43	173	I10-160921-SS-06-01_09/21/2016	181/181	1,300	--	94,000	--
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	3,130	21,300	JSB-9-0.5-2.0_01/14/2020	181/181	NS	--	NS	--
Lead	7439-92-1	Surface Soil	mg/kg	4.7	797	H4-160412-SS-03-01_04/12/2016	181/181	500	1.59E+00	1,600	--
Magnesium	7439-95-4	Surface Soil	mg/kg	700	4,400	DSB-5-0.5-2.0_05/14/2019	181/181	NS	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	213	1,590	J0-160920-SS-06-01_09/20/2016	181/181	3,900	--	73,000	--
Mercury	7439-97-6	Surface Soil	mg/kg	0.00814	46.2	I10-160921-SS-06-01_09/21/2016	172/181	3.6	1.28E+01	6.2	7.45E+00
Nickel	7440-02-0	Surface Soil	mg/kg	5.18	282	H4-160412-SS-03-01_04/12/2016	181/181	840	--	8,800	--
Potassium	7440-09-7	Surface Soil	mg/kg	311	3,310	G1-160412-SS-03-01_04/12/2016	181/181	NS	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.25	1.25	C10-160921-SS-06-01_09/21/2016, A0-160920-SS-06-01_09/20/2016	111/181	310	--	4,900	--
Silver	7440-22-4	Surface Soil	mg/kg	0.047	0.823	I10-160921-SS-06-01_09/21/2016	9/181	97	--	2,300	--
Sodium	7440-23-5	Surface Soil	mg/kg	28.5	605	SS-5-0.0-0.5_01/14/2020	98/181	NS	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.073	0.28	H0-160920-SS-18-01_09/20/2016	55/181	5.3	--	65	--
Vanadium	7440-62-2	Surface Soil	mg/kg	9.02	52.1	JSB-9-0.5-2.0_01/14/2020	180/181	76	--	620	--
Zinc	7440-66-6	Surface Soil	mg/kg	10.4	390	I10-160921-SS-06-01_09/21/2016	181/181	9,900	--	250,000	--
Hexavalent Chromium (SW7196/SW7196A/SW7199)											
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.34	247	F1-160412-SS-03-01_04/12/2016	67/179	120	2.06E+00	1,000	--
Cyanide (ISM02.4)											
Cyanide	57-12-5	Surface Soil	mg/kg	0.033	5.1	JSB-3-0.0-0.5_05/13/2019	13/26	45	--	370	--
Volatile Organic Compounds (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/2	53,000	--	100,000	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/2	30	--	140	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/2	74,000	--	110,000	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/2	18	--	35	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/2	11,000	--	41,000	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	6,400	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.15	--	0.26	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/2	2.5	--	8.7	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	41	--	110	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/2	61	--	86	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/2	40,000	--	190,000	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/2	270	--	940	--
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/2	5,900	--	41,000	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/2	66,000	--	440,000	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/2	120	--	240	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/2	98	--	460	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/2	400	--	1,000	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/2	46	--	100	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/2	4,600	--	13,000	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/2	35	--	81	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/2	520	--	1,000	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/2	27,000	--	140,000	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/2	16	--	26	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/2	140	--	290	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/2	140	--	790	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/2	8	--	53	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/2	75,000	--	130,000	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/2	72	--	340	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/2	1,400	--	2,100	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/2	6,400	--	29,000	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/2	4,300	--	11,000	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/2	8,900	--	13,000	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/2	82,000	--	1,000,000	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/2	800	--	2,000	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/2	41,000	--	64,000	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	1,600	--	12,000	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/2	48,000	--	91,000	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/2	6,700	--	15,000	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/2	710	--	1,400	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/2	5,900	--	42,000	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/2	590	--	1,200	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/2	36	--	99	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	18	--	40	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/2	25,000	--	310,000	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/2	3.7	--	15	--
Semivolatile Organic Compounds (OLM04.2)											
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/2	12,000	--	85,000	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/2	120	--	200	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/2	720	--	1,100	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/2	120	--	170	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/2	250	--	1,200	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/2	150	--	600	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/2	51	--	150	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/2	6,700	--	68,000	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	67	--	680	--
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/2	200	--	2,000	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/2	1,300	--	14,000	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/2	130	--	1,400	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/2	6.9	--	28	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/2	6.9	--	28	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/2	5,000	--	50,000	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/2	410	--	5,100	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/2	250	--	2,500	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/2	3,300	--	34,000	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/2	14	--	50	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/2	130	--	1,400	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/2	330	--	3,400	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/2	10	--	42	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	15	--	59	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/2	7	--	68	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.28	--	1.2	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/2	330	--	3,400	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/2	23	--	95	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.16	--	0.98	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	220	--	950	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/2	130	--	1,400	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/2	3,000	--	37,000	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/2	3,800	--	37,000	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/2	6,700	--	68,000	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/2	18,000	--	190,000	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/2	21	--	86	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/2	8,200	--	100,000	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	41	--	170	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/2	4.1	--	17	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/2	42	--	170	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/2	1,800	--	19,000	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/2	420	--	1,700	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/2	6,700	--	68,000	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/2	1,600	--	10,000	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/2	3.1	--	9.1	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/2	2.2	--	4.9	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/2	43	--	560	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/2	33,000	--	340,000	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/2	230	--	950	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/2	4,100	--	17,000	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/2	4	--	17	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/2	270	--	2,700	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/2	53,000	--	550,000	--
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/2	53,000	--	550,000	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/2	6,200	--	68,000	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/2	640	--	6,800	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	25,000	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	25,000	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--	8.7	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/2	20	--	41	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/2	14	--	20	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/2	46	--	450	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/2	42	--	170	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/2	4,900	--	20,000	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/2	220	--	360	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/2	66	--	110	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.4	--	1.4	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.73	--	32	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/2	1,700	--	19,000	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/2	1,800	--	2,700	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/2	1,700	--	19,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.00032	0.00041	DSB-7-0.5-2.0_05/15/2019	2/2	86	--	600	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/2	180	--	1,100	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.8	--	8.2	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.99	--	9.4	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.79	--	7.5	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/2	1.5	--	16	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.25	--	2.2	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.25	--	2.6	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.76	--	6.1	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/2	0.058	--	0.087	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.03	0.032	DSB-7-0.5-2.0_05/15/2019	2/2	1.5	--	15	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.6	--	2.4	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.25	--	2.6	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.51	--	8.2	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.61	--	8.2	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.8	--	8.2	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	12,000	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	12,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	1,600	--	3,900	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2]			
								Residential	Residential Exceedance [4]	Industrial	Industrial Exceedance [4]

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
Surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]		
								TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)										
Aluminum	7429-90-5	Surface Soil	mg/kg	2,260	25,200	DSB-5-0.5-2.0_05/14/2019	181/181	NS	--	50
Antimony	7440-36-0	Surface Soil	mg/kg	0.279	3.34	I10-160921-SS-06-01_09/21/2016	6/181	5	--	0.142
Arsenic	7440-38-2	Surface Soil	mg/kg	2.37	19.1	SS-8-0.0-0.5_01/15/2020	175/181	18	1.06E+00	5.7
Barium	7440-39-3	Surface Soil	mg/kg	32.5	210	J0-160920-SS-06-01_09/20/2016	181/181	330	--	1.04
Beryllium	7440-41-7	Surface Soil	mg/kg	0.144	1.1	JSB-9-0.5-2.0_01/14/2020	171/181	10	--	1.06
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Cadmium	7440-43-9	Surface Soil	mg/kg	0.122	32.4	H4-160412-SS-03-01_04/12/2016	156/181	32	1.01E+00	0.00222
Calcium	7440-70-2	Surface Soil	mg/kg	47,400	263,000	A0-160920-SS-18-01_09/20/2016	181/181	NS	--	NS
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	4.25	5,170	I10-160921-SS-06-01_09/21/2016	181/181	0.4	1.29E+04	26
Cobalt	7440-48-4	Surface Soil	mg/kg	2.03	13.4	E9-160923-SS-06-01_09/23/2016	181/181	NS	--	0.14
Copper	7440-50-8	Surface Soil	mg/kg	2.43	173	I10-160921-SS-06-01_09/21/2016	181/181	70	2.47E+00	5.4
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Iron	7439-89-6	Surface Soil	mg/kg	3,130	21,300	JSB-9-0.5-2.0_01/14/2020	181/181	NS	--	200
Lead	7439-92-1	Surface Soil	mg/kg	4.7	797	H4-160412-SS-03-01_04/12/2016	181/181	120	6.64E+00	0.0537
Magnesium	7439-95-4	Surface Soil	mg/kg	700	4,400	DSB-5-0.5-2.0_05/14/2019	181/181	NS	--	NS
Manganese	7439-96-5	Surface Soil	mg/kg	213	1,590	J0-160920-SS-06-01_09/20/2016	181/181	220	7.23E+00	100
Mercury	7439-97-6	Surface Soil	mg/kg	0.00814	46.2	I10-160921-SS-06-01_09/21/2016	172/181	0.10	4.62E+02	0.1
Nickel	7440-02-0	Surface Soil	mg/kg	5.18	282	H4-160412-SS-03-01_04/12/2016	181/181	38.00	7.42E+00	13.6
Potassium	7440-09-7	Surface Soil	mg/kg	311	3,310	G1-160412-SS-03-01_04/12/2016	181/181	NS	--	NS
Selenium	7782-49-2	Surface Soil	mg/kg	0.25	1.25	C10-160921-SS-06-01_09/21/2016, A0-160920-SS-06-01_09/20/2016	111/181	0.52	2.40E+00	0.0276
Silver	7440-22-4	Surface Soil	mg/kg	0.047	0.823	I10-160921-SS-06-01_09/21/2016	9/181	NS	--	2
Sodium	7440-23-5	Surface Soil	mg/kg	28.5	605	SS-5-0.0-0.5_01/14/2020	98/181	NS	--	NS
Thallium	7440-28-0	Surface Soil	mg/kg	0.073	0.28	H0-160920-SS-18-01_09/20/2016	55/181	NS	--	0.0569
Vanadium	7440-62-2	Surface Soil	mg/kg	9.02	52.1	JSB-9-0.5-2.0_01/14/2020	180/181	NS	--	1.59
Zinc	7440-66-6	Surface Soil	mg/kg	10.4	390	I10-160921-SS-06-01_09/21/2016	181/181	120	3.25E+00	6.62
Hexavalent Chromium (SW7196/SW7196A/SW7199)										
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.34	247	F1-160412-SS-03-01_04/12/2016	67/179	NS	--	0.4
Cyanide (ISM02.4)										
Cyanide	57-12-5	Surface Soil	mg/kg	0.033	5.1	JSB-3-0.0-0.5_05/13/2019	13/26	NS	--	NS
Volatile Organic Compounds (OLM04.2)										
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.07
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.127
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.4
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.02
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0352
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	1.23
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.02
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/2	700	--	0.002
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	89.6
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	12.6
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	443
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	2.5
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.01

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]		
								TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.54
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	15.9
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.235
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0941
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.4
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/2	40	--	0.05
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.001
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	10.4
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.398
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	2.05
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	39.5
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.03
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	125
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.4
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.1
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.002
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.05
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.398
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.001
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	16.4
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.01
Semivolatile Organic Compounds (OLM04.2)										
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/2	20	--	0.01
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.01
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	37.7
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/2	20	--	0.01
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	19.9
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/2	4	--	4
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	10	--	9.94
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	87.5
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.01
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0609
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/2	6	--	1.28
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/2	5	--	0.0328
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0122

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]		
								TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.01
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	3.24
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.5
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	74.1
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	1.6
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.646
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	3.16
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.144
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	7.95
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.005
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	21.9
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/2	7	--	5.12
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	20
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	682
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.1
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	5.21
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.1
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	59.8
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	119
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	148
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.239
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.302
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	23.7
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.925
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	4.73
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	18.4
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	24.8
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/2	200	--	200
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	709
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.1
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	30
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0025
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0398
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.755

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]		
								TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.596
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	109
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	139
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.0994
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/2	40	--	1.31
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.544
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/2	5	--	0.002
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.1
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/2	30	--	0.05
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	0.1
PFAS (E537.0M)										
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.00032	0.00041	DSB-7-0.5-2.0_05/15/2019	2/2	NS	--	NS
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.03	0.032	DSB-7-0.5-2.0_05/15/2019	2/2	NS	--	NS
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
PCB Aroclors (OLM04.2)										
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	40
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
Total Petroleum Hydrocarbons (TX1005)										
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]		
								TRRP Ecological Benchmarks [5]	TRRP Ecological Benchmarks Exceedance [4]	Lowest RAIS Screening Value [6]

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
Surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] Lowest RAIS Screening Value Exceedance [4]	EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)										
Aluminum	7429-90-5	Surface Soil	mg/kg	2,260	25,200	DSB-5-0.5-2.0_05/14/2019	181/181	5.04E+02	NS	--
Antimony	7440-36-0	Surface Soil	mg/kg	0.279	3.34	I10-160921-SS-06-01_09/21/2016	6/181	2.35E+01	0.27	1.24E+01
Arsenic	7440-38-2	Surface Soil	mg/kg	2.37	19.1	SS-8-0.0-0.5_01/15/2020	175/181	3.35E+00	18	1.06E+00
Barium	7440-39-3	Surface Soil	mg/kg	32.5	210	J0-160920-SS-06-01_09/20/2016	181/181	2.02E+02	330	--
Beryllium	7440-41-7	Surface Soil	mg/kg	0.144	1.1	JSB-9-0.5-2.0_01/14/2020	171/181	1.04E+00	21	--
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.122	32.4	H4-160412-SS-03-01_04/12/2016	156/181	1.46E+04	0.36	9.00E+01
Calcium	7440-70-2	Surface Soil	mg/kg	47,400	263,000	A0-160920-SS-18-01_09/20/2016	181/181	--	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	4.25	5,170	I10-160921-SS-06-01_09/21/2016	181/181	1.99E+02	130	3.98E+01
Cobalt	7440-48-4	Surface Soil	mg/kg	2.03	13.4	E9-160923-SS-06-01_09/23/2016	181/181	9.57E+01	13	1.03E+00
Copper	7440-50-8	Surface Soil	mg/kg	2.43	173	I10-160921-SS-06-01_09/21/2016	181/181	3.20E+01	28	6.18E+00
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	3,130	21,300	JSB-9-0.5-2.0_01/14/2020	181/181	1.07E+02	NS	--
Lead	7439-92-1	Surface Soil	mg/kg	4.7	797	H4-160412-SS-03-01_04/12/2016	181/181	1.48E+04	11	7.25E+01
Magnesium	7439-95-4	Surface Soil	mg/kg	700	4,400	DSB-5-0.5-2.0_05/14/2019	181/181	--	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	213	1,590	J0-160920-SS-06-01_09/20/2016	181/181	1.59E+01	220	7.23E+00
Mercury	7439-97-6	Surface Soil	mg/kg	0.00814	46.2	I10-160921-SS-06-01_09/21/2016	172/181	4.62E+02	NS	--
Nickel	7440-02-0	Surface Soil	mg/kg	5.18	282	H4-160412-SS-03-01_04/12/2016	181/181	2.07E+01	38	7.42E+00
Potassium	7440-09-7	Surface Soil	mg/kg	311	3,310	G1-160412-SS-03-01_04/12/2016	181/181	--	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.25	1.25	C10-160921-SS-06-01_09/21/2016, A0-160920-SS-06-01_09/20/2016	111/181	4.53E+01	0.52	2.40E+00
Silver	7440-22-4	Surface Soil	mg/kg	0.047	0.823	I10-160921-SS-06-01_09/21/2016	9/181	--	4.2	--
Sodium	7440-23-5	Surface Soil	mg/kg	28.5	605	SS-5-0.0-0.5_01/14/2020	98/181	--	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.073	0.28	H0-160920-SS-18-01_09/20/2016	55/181	4.92E+00	NS	--
Vanadium	7440-62-2	Surface Soil	mg/kg	9.02	52.1	JSB-9-0.5-2.0_01/14/2020	180/181	3.28E+01	7.8	6.68E+00
Zinc	7440-66-6	Surface Soil	mg/kg	10.4	390	I10-160921-SS-06-01_09/21/2016	181/181	5.89E+01	46	8.48E+00
Hexavalent Chromium (SW7196/SW7196A/SW7199)										
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.34	247	F1-160412-SS-03-01_04/12/2016	67/179	1.29E+04	130	1.90E+00
Cyanide (ISM02.4)										
Cyanide	57-12-5	Surface Soil	mg/kg	0.033	5.1	JSB-3-0.0-0.5_05/13/2019	13/26	--	NS	--
Volatile Organic Compounds (OLM04.2)										
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] Lowest RAIS Screening Value Exceedance [4]	EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Semivolatile Organic Compounds (OLM04.2)										
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] Lowest RAIS Screening Value Exceedance [4]	EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3] Lowest RAIS Screening Value Exceedance [4]	EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	2.1	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	29	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/2	--	1.1	--
PFAS (E537.0M)										
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.00032	0.00041	DSB-7-0.5-2.0_05/15/2019	2/2	--	NS	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.03	0.032	DSB-7-0.5-2.0_05/15/2019	2/2	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
PCB Aroclors (OLM04.2)										
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
Total Petroleum Hydrocarbons (TX1005)										
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	--	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Ecological Screening Levels [3]		
								Lowest RAIS Screening Value Exceedance [4]	EPA Eco-SSL Lowest Value [7]	EPA Eco-SSL Lowest Value Exceedance [4]

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
Surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
Metals (ILM05.3/ISM02.4/SW6010B/SW6020/SW7471A)									
Aluminum	7429-90-5	Surface Soil	mg/kg	2,260	25,200	DSB-5-0.5-2.0_05/14/2019	181/181	50	5.04E+02
Antimony	7440-36-0	Surface Soil	mg/kg	0.279	3.34	I10-160921-SS-06-01_09/21/2016	6/181	0.142	2.35E+01
Arsenic	7440-38-2	Surface Soil	mg/kg	2.37	19.1	SS-8-0.0-0.5_01/15/2020	175/181	5.7	3.35E+00
Barium	7440-39-3	Surface Soil	mg/kg	32.5	210	J0-160920-SS-06-01_09/20/2016	181/181	1.04	2.02E+02
Beryllium	7440-41-7	Surface Soil	mg/kg	0.144	1.1	JSB-9-0.5-2.0_01/14/2020	171/181	1.06	1.04E+00
Bismuth	7440-69-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Cadmium	7440-43-9	Surface Soil	mg/kg	0.122	32.4	H4-160412-SS-03-01_04/12/2016	156/181	0.00222	1.46E+04
Calcium	7440-70-2	Surface Soil	mg/kg	47,400	263,000	A0-160920-SS-18-01_09/20/2016	181/181	NS	--
Chromium (Trivalent)[9]	7440-47-3	Surface Soil	mg/kg	4.25	5,170	I10-160921-SS-06-01_09/21/2016	181/181	0.4	1.29E+04
Cobalt	7440-48-4	Surface Soil	mg/kg	2.03	13.4	E9-160923-SS-06-01_09/23/2016	181/181	0.14	9.57E+01
Copper	7440-50-8	Surface Soil	mg/kg	2.43	173	I10-160921-SS-06-01_09/21/2016	181/181	5.4	3.20E+01
Indium	7440-74-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Iron	7439-89-6	Surface Soil	mg/kg	3,130	21,300	JSB-9-0.5-2.0_01/14/2020	181/181	200	1.07E+02
Lead	7439-92-1	Surface Soil	mg/kg	4.7	797	H4-160412-SS-03-01_04/12/2016	181/181	0.0537	1.48E+04
Magnesium	7439-95-4	Surface Soil	mg/kg	700	4,400	DSB-5-0.5-2.0_05/14/2019	181/181	NS	--
Manganese	7439-96-5	Surface Soil	mg/kg	213	1,590	J0-160920-SS-06-01_09/20/2016	181/181	100	1.59E+01
Mercury	7439-97-6	Surface Soil	mg/kg	0.00814	46.2	I10-160921-SS-06-01_09/21/2016	172/181	0.1	4.62E+02
Nickel	7440-02-0	Surface Soil	mg/kg	5.18	282	H4-160412-SS-03-01_04/12/2016	181/181	13.6	2.07E+01
Potassium	7440-09-7	Surface Soil	mg/kg	311	3,310	G1-160412-SS-03-01_04/12/2016	181/181	NS	--
Selenium	7782-49-2	Surface Soil	mg/kg	0.25	1.25	C10-160921-SS-06-01_09/21/2016, A0-160920-SS-06-01_09/20/2016	111/181	0.0276	4.53E+01
Silver	7440-22-4	Surface Soil	mg/kg	0.047	0.823	I10-160921-SS-06-01_09/21/2016	9/181	2	--
Sodium	7440-23-5	Surface Soil	mg/kg	28.5	605	SS-5-0.0-0.5_01/14/2020	98/181	NS	--
Thallium	7440-28-0	Surface Soil	mg/kg	0.073	0.28	H0-160920-SS-18-01_09/20/2016	55/181	0.0569	4.92E+00
Vanadium	7440-62-2	Surface Soil	mg/kg	9.02	52.1	JSB-9-0.5-2.0_01/14/2020	180/181	1.59	3.28E+01
Zinc	7440-66-6	Surface Soil	mg/kg	10.4	390	I10-160921-SS-06-01_09/21/2016	181/181	6.62	5.89E+01
Hexavalent Chromium (SW7196/SW7196A/SW7199)									
Chromium (hexavalent)	18540-29-9	Surface Soil	mg/kg	0.34	247	F1-160412-SS-03-01_04/12/2016	67/179	0.4	6.18E+02
Cyanide (ISM02.4)									
Cyanide	57-12-5	Surface Soil	mg/kg	0.033	5.1	JSB-3-0.0-0.5_05/13/2019	13/26	NS	--
Volatile Organic Compounds (OLM04.2)									
1,1,1-Trichloroethane	71-55-6	Surface Soil	mg/kg	ND	ND	--	0/2	0.07	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.127	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
1,1,2-Trichloroethane	79-00-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.4	--
1,1-Dichloroethane	75-34-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.02	--
1,1-Dichloroethene	75-35-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.0352	--
1,2-Dibromoethane	106-93-4	Surface Soil	mg/kg	ND	ND	--	0/2	1.23	--
1,2-Dichloroethane	107-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.02	--
1,2-Dichloropropane	78-87-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.002	--
2-Butanone	78-93-3	Surface Soil	mg/kg	ND	ND	--	0/2	89.6	--
2-Hexanone	591-78-6	Surface Soil	mg/kg	ND	ND	--	0/2	12.6	--
4-Methyl-2-pentanone	108-10-1	Surface Soil	mg/kg	ND	ND	--	0/2	443	--
Acetone	67-64-1	Surface Soil	mg/kg	ND	ND	--	0/2	2.5	--
Benzene	71-43-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
Bromodichloromethane	75-27-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.54	--
Bromoform	75-25-2	Surface Soil	mg/kg	ND	ND	--	0/2	15.9	--
Bromomethane	74-83-9	Surface Soil	mg/kg	ND	ND	--	0/2	0.235	--
Carbon disulfide	75-15-0	Surface Soil	mg/kg	ND	ND	--	0/2	0.0941	--
Carbon tetrachloride	56-23-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.4	--
Chlorobenzene	108-90-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.05	--
Chloroethane	75-00-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Chloroform	67-66-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.001	--
Chloromethane	74-87-3	Surface Soil	mg/kg	ND	ND	--	0/2	10.4	--
cis-1,2-dichloroethene	156-59-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
cis-1,3-dichloropropene	10061-01-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.398	--
Cyclohexane	110-82-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Dibromochloromethane	124-48-1	Surface Soil	mg/kg	ND	ND	--	0/2	2.05	--
Dichlorodifluoromethane	75-71-8	Surface Soil	mg/kg	ND	ND	--	0/2	39.5	--
Ethylbenzene	100-41-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.03	--
Isopropylbenzene	98-82-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
m,p-Xylene	179601-23-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Methyl acetate	79-20-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Methyl tert-butyl ether	1634-04-4	Surface Soil	mg/kg	ND	ND	--	0/2	125	--
Methylcyclohexane	108-87-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Methylene Chloride	75-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.4	--
o-Xylene	95-47-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Styrene	100-42-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.1	--
Tetrachloroethene	127-18-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.002	--
Toluene	108-88-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.05	--
trans-1,2-dichloroethene	156-60-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
trans-1,3-dichloropropene	10061-02-6	Surface Soil	mg/kg	ND	ND	--	0/2	0.398	--
Trichloroethene	79-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	0.001	--
Trichlorofluoromethane	75-69-4	Surface Soil	mg/kg	ND	ND	--	0/2	16.4	--
Vinyl chloride	75-01-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--
Semivolatile Organic Compounds (OLM04.2)									
1,1'-Biphenyl	92-52-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
1,2,4-Trichlorobenzene	120-82-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--
1,2-Dichlorobenzene	95-50-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--
1,3-Dichlorobenzene	541-73-1	Surface Soil	mg/kg	ND	ND	--	0/2	37.7	--
1,4-Dichlorobenzene	106-46-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--
1-Methylnaphthalene	90-12-0	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Soil	mg/kg	ND	ND	--	0/2	19.9	--
2,4,5-Trichlorophenol	95-95-4	Surface Soil	mg/kg	ND	ND	--	0/2	4	--
2,4,6-Trichlorophenol	88-06-2	Surface Soil	mg/kg	ND	ND	--	0/2	9.94	--
2,4-Dichlorophenol	120-83-2	Surface Soil	mg/kg	ND	ND	--	0/2	87.5	--
2,4-Dimethylphenol	105-67-9	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--
2,4-Dinitrophenol	51-28-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.0609	--
2,4-Dinitrotoluene	121-14-2	Surface Soil	mg/kg	ND	ND	--	0/2	1.28	--
2,6-Dinitrotoluene	606-20-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.0328	--
2-Chloronaphthalene	91-58-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.0122	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
2-Chlorophenol	95-57-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.01	--
2-Methylnaphthalene	91-57-6	Surface Soil	mg/kg	ND	ND	--	0/2	3.24	--
2-Methylphenol	95-48-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.5	--
2-Nitroaniline	88-74-4	Surface Soil	mg/kg	ND	ND	--	0/2	74.1	--
2-Nitrophenol	88-75-5	Surface Soil	mg/kg	ND	ND	--	0/2	1.6	--
3&4-methylphenol	34MP	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
3,3'-Dichlorobenzidine	91-94-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.646	--
3-Nitroaniline	99-09-2	Surface Soil	mg/kg	ND	ND	--	0/2	3.16	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.144	--
4-Bromophenyl phenyl ether	101-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
4-chloro-3-methylphenol	59-50-7	Surface Soil	mg/kg	ND	ND	--	0/2	7.95	--
4-Chloroaniline	106-47-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.005	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
4-Nitroaniline	100-01-6	Surface Soil	mg/kg	ND	ND	--	0/2	21.9	--
4-Nitrophenol	100-02-7	Surface Soil	mg/kg	ND	ND	--	0/2	5.12	--
Acenaphthene	83-32-9	Surface Soil	mg/kg	ND	ND	--	0/2	20	--
Acenaphthylene	208-96-8	Surface Soil	mg/kg	ND	ND	--	0/2	29	--
Acetophenone	98-86-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Anthracene	120-12-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.1	--
Atrazine	1912-24-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Benzaldehyde	100-52-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Benzo[a]anthracene	56-55-3	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Benzo[a]pyrene	50-32-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.1	--
Benzo[b]fluoranthene	205-99-2	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Benzo[g,h,i]perylene	191-24-2	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Benzo[k]fluoranthene	207-08-9	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Benzyl alcohol	100-51-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Benzyl butyl phthalate	85-68-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.239	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.302	--
Bis(2-chloroethyl) ether	111-44-4	Surface Soil	mg/kg	ND	ND	--	0/2	23.7	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.925	--
Caprolactam	105-60-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Carbazole	86-74-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Chrysene	218-01-9	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Dibenz[a,h]anthracene	53-70-3	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Dibenzofuran	132-64-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Diethyl phthalate	84-66-2	Surface Soil	mg/kg	ND	ND	--	0/2	24.8	--
Dimethyl phthalate	131-11-3	Surface Soil	mg/kg	ND	ND	--	0/2	200	--
di-n-Butyl phthalate	84-74-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Di-n-octyl phthalate	117-84-0	Surface Soil	mg/kg	ND	ND	--	0/2	709	--
Fluoranthene	206-44-0	Surface Soil	mg/kg	ND	ND	--	0/2	0.1	--
Fluorene	86-73-7	Surface Soil	mg/kg	ND	ND	--	0/2	29	--
Hexachlorobenzene	118-74-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.0025	--
Hexachlorobutadiene	87-68-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.0398	--
Hexachlorocyclopentadiene	77-47-4	Surface Soil	mg/kg	ND	ND	--	0/2	0.755	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]
Hexachloroethane	67-72-1	Surface Soil	mg/kg	ND	ND	--	0/2	0.596	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Isophorone	78-59-1	Surface Soil	mg/kg	ND	ND	--	0/2	139	--
Naphthalene	91-20-3	Surface Soil	mg/kg	ND	ND	--	0/2	0.0994	--
Nitrobenzene	98-95-3	Surface Soil	mg/kg	ND	ND	--	0/2	1.31	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Soil	mg/kg	ND	ND	--	0/2	0.544	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Pentachlorophenol	87-86-5	Surface Soil	mg/kg	ND	ND	--	0/2	0.002	--
Phenanthrene	85-01-8	Surface Soil	mg/kg	ND	ND	--	0/2	0.1	--
Phenol	108-95-2	Surface Soil	mg/kg	ND	ND	--	0/2	0.05	--
Pyrene	129-00-0	Surface Soil	mg/kg	ND	ND	--	0/2	0.1	--
PFAS (E537.0M)									
Perfluorobutanesulfonic acid	375-73-5	Surface Soil	mg/kg	0.00032	0.00041	DSB-7-0.5-2.0_05/15/2019	2/2	NS	--
Perfluorobutanoic acid	375-22-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorodecanoic acid	335-76-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorododecanoic acid	307-55-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorohexanoic acid	307-24-4	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorononanoic acid	375-95-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Soil	mg/kg	0.03	0.032	DSB-7-0.5-2.0_05/15/2019	2/2	NS	--
Perfluorooctanoic acid	335-67-1	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
PCB Aroclors (OLM04.2)									
Aroclor 1016	12674-11-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Aroclor 1221	11104-28-2	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Aroclor 1232	11141-16-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Aroclor 1242	53469-21-9	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Aroclor 1248	12672-29-6	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Aroclor 1254	11097-69-1	Surface Soil	mg/kg	ND	ND	--	0/2	40	--
Aroclor 1260	11096-82-5	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
Total Petroleum Hydrocarbons (TX1005)									
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--

Table 5-2 Open Area Screening Level Exceedances for Surface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Ecological Screening Level [8]	Project Screening Level Exceedance [4]

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 0.1 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
Surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
4. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
5. TRRP Ecological Benchmarks for soil which includes soil invertebrates, plants, and median background levels, https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
6. The lowest ecological risk soil screening value from the Risk Assessment Information System (RAIS) database, found at http://rais.ornl.gov/tools/eco_search.php.
7. EPA Ecological Soil Screening Levels (SSLs). http://www.epa.gov/ecotox/ecossl/
8. The Project Ecological Screening Level was selected based on the lowest ecological benchmark, whether EPA or TCEQ.
9. Chromium III values applied since no values for total chromium available.
10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	Background	BKG1-161013-SS-06-01	0	6	in	Chromium (hexavalent)	2.29	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Background	Background	BKG1-161013-SS-18-01	6	18	in	Chromium (hexavalent)	2.12	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-01	BSB-1-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.74	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Background	BSB-01	BSB-1-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.3	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-02	BSB-2-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.18	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-02	BSB-2-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.29	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-03	BSB-3-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.42	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Background	BSB-03	BSB-3-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	0.43	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Background	BSB-03	BSB-3-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.38	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Background	BSB-04	BSB-4-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.42	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Background	BSB-04	BSB-4-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.26	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-05	BSB-5-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.18	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-05	BSB-5-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.23	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-06	BSB-6-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.19	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-06	BSB-6-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.5	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Background	BSB-07	BSB-7-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.23	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-07	BSB-7-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.22	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-08	BSB-8-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	2.4	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Background	BSB-08	BSB-8-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	0.18	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Background	BSB-08	BSB-8-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.57	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	A2	A2-160412-SS-03-01	0	3	in	Chromium (hexavalent)	228	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	A2	A2-160412-SS-03-02	0	3	in	Chromium (hexavalent)	235	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	A2	A2-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.24	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	A3	A3-160412-SS-03-01	0	3	in	Chromium (hexavalent)	243	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	A3	A3-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.37	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	A5	A5-160922-SS-06-01	0	6	in	Chromium (hexavalent)	2.12	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	A5	A5-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.54	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	A5	A5-160922-SS-18-02	12	18	in	Chromium (hexavalent)	2.51	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	A6	A6-160412-SS-03-01	0	3	in	Chromium (hexavalent)	219	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	A6	A6-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.41	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	ACMW-01	ACMW-1-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	74	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	ACMW-01	ACMW-1-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	8.6	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	ACMW-02	ACMW-2-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	26.6	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	ACMW-02	ACMW-2-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	15	mg/kg	J	0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	ACMW-02	ACMW-2-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	165	mg/kg	J	0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	ACMW-04	ACMW-4-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	6.4	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	ACMW-04	ACMW-4-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.63	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	B2	B2-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.31	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	B2	B2-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.34	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	B5	B5-160922-SS-06-01	0	6	in	Chromium (hexavalent)	2.37	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	B5	B5-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.62	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	B6	B6-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.19	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	B6	B6-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.48	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	C2	C2-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.34	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	C2	C2-160922-SS-12-01	6	12	in	Chromium (hexavalent)	2.42	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	C2	C2-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.4	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	C5	C5-160922-SS-06-01	0	6	in	Chromium (hexavalent)	2.06	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	C5	C5-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.53	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	C6	C6-160412-SS-03-01	0	3	in	Chromium (hexavalent)	4.42	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	C6	C6-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.54	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	C7	C7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	269	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	C7	C7-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.36	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	D2	D2-160412-SS-03-01	0	3	in	Chromium (hexavalent)	302	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	D2	D2-160922-SS-12-01	6	12	in	Chromium (hexavalent)	2.64	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	D2	D2-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.59	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	D5	D5-160922-SS-06-01	0	6	in	Chromium (hexavalent)	3.65	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	D5	LPW03-D5-SS-160413-01	0	3	in	Chromium (hexavalent)	54.5	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	D5	D5-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.54	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	D6	D6-160412-SS-03-01	0	3	in	Chromium (hexavalent)	223	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	D6	D6-160922-SS-12-01	6	12	in	Chromium (hexavalent)	2.51	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	D6	D6-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.52	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	D7	D7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	254	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	D7	D7-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.41	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	DSB-08	DSB-8-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	82.1	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	DSB-08	DSB-8-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	47.9	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	E2	LPW04-E2-SS-160413-01	0	3	in	Chromium (hexavalent)	2.72	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	E6	E6-160922-SS-06-01	0	6	in	Chromium (hexavalent)	203	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	E6	E6-160922-SS-06-02	0	6	in	Chromium (hexavalent)	189	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	E6	LPW01-E6-SS-160413-01	0	3	in	Chromium (hexavalent)	2130	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	E6	LPW01-E6-SS-160413-02	0	3	in	Chromium (hexavalent)	1010	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	E6	E6-160922-SS-12-01	6	12	in	Chromium (hexavalent)	3.16	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	E6	E6-160922-SS-18-01	12	18	in	Chromium (hexavalent)	1.33	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	E7	E7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	167	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	E7	E7-160922-SS-12-01	6	12	in	Chromium (hexavalent)	1.88	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	E7	E7-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.27	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	E7	E7-160922-SS-18-02	12	18	in	Chromium (hexavalent)	2.61	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	F7	F7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	421	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	F7	LPW02-F7-SS-160413-01	0	3	in	Chromium (hexavalent)	130	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	F7	F7-160922-SS-12-01	6	12	in	Chromium (hexavalent)	2.76	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	F7	F7-160922-SS-18-01	12	18	in	Chromium (hexavalent)	1.75	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	F7	F7-160922-SS-18-02	12	18	in	Chromium (hexavalent)	1.17	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	G3	LPW05-G3-SS-160413-01	0	3	in	Chromium (hexavalent)	267	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	G5	G5-160412-SS-03-01	0	3	in	Chromium (hexavalent)	274	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	G5	G5-160922-SS-12-01	6	12	in	Chromium (hexavalent)	14.5	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	G5	G5-160922-SS-18-01	12	18	in	Chromium (hexavalent)	2.34	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	G7	G7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	5620	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	G7	G7-160923-SS-12-01	6	12	in	Chromium (hexavalent)	2.75	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	G7	G7-160923-SS-18-01	12	18	in	Chromium (hexavalent)	1.34	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	JSB-02	JSB-2-0.0-0.5-D	0	0.5	ft	Chromium (hexavalent)	1070	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	JSB-02	JSB-2-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1130	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	JSB-02	JSB-2-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	56.3	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	JSB-04	JSB-4-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	158	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	JSB-04	JSB-4-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	121	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	JSB-06	JSB-6-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	12.3	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	JSB-06	JSB-6-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	1.5	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	JSB-09	JSB-9-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	JSB-09	JSB-9-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.58	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	JSB-10	JSB-10-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.3	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Process Area	JSB-10	JSB-10-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.3	mg/kg	J	0.3	--	6.3	--	0.34	--	1.672	--
Process Area	JSB-11	JSB-11-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	274	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	JSB-11	JSB-11-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	4.5	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Process Area	MW-01	MW-1-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	793	mg/kg	J	0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	MW-01	MW-1-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	239	mg/kg	J	0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	MW-09	MW-9-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	34	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	MW-09	MW-9-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	117	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	MW-10	MW-10-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	11	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Process Area	MW-10	MW-10-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	10.9	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	A0	A0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.14	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A0	A0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.14	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A1	A1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.24	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A1	A1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.2	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A10	A10-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.22	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A10	A10-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.26	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A7	A7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	235	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A7	A7-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.35	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A8	A8-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.14	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A8	A8-160921-SS-18-01	12	18	in	Chromium (hexavalent)	10.4	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	A9	A9-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.15	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A9	A9-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.33	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	A9	A9-160921-SS-18-02	12	18	in	Chromium (hexavalent)	2.35	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	ACMW-03	ACMW-3-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.2	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	ACMW-03	ACMW-3-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.52	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	B0	B0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.19	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B0	B0-160920-SS-06-02	0	6	in	Chromium (hexavalent)	2.19	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B0	B0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.18	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B1	B1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.32	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B1	B1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.22	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B10	B10-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.16	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B10	B10-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.34	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B7	B7-160412-SS-03-01	0	3	in	Chromium (hexavalent)	251	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B7	B7-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.44	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B8	B8-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.19	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B8	B8-160921-SS-18-01	12	18	in	Chromium (hexavalent)	0.799	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	B9	B9-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.13	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	B9	B9-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.11	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C0	C0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C0	C0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.26	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C1	C1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.26	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C1	C1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.5	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C10	C10-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.15	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C10	C10-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.14	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C8	C8-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.23	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C8	C8-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.19	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C9	C9-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.22	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	C9	C9-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.12	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D0	D0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.24	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D0	D0-160920-SS-06-02	0	6	in	Chromium (hexavalent)	2.22	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D0	D0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.26	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D1	D1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.36	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D1	D1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.14	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D10	D10-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.19	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D10	D10-160921-SS-06-02	0	6	in	Chromium (hexavalent)	2.18	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	D10	D10-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.13	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	DSB-01	DSB-1-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.72	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	DSB-01	DSB-1-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.56	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	DSB-02	DSB-2-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	21.9	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	DSB-02	DSB-2-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	DSB-03	DSB-3-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	9.7	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	DSB-03	DSB-3-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	20.5	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	DSB-04	DSB-4-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	DSB-04	DSB-4-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.83	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	DSB-05	DSB-5-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.9	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	DSB-05	DSB-5-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	0.87	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	DSB-05	DSB-5-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	18.3	mg/kg	J	0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	DSB-06	DSB-6-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	2.7	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	DSB-06	DSB-6-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	1.4	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	DSB-07	DSB-7-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	6.2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	DSB-07	DSB-7-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	1.8	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	DSB-09	DSB-9-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	7.2	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	DSB-09	DSB-9-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	1.6	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	E0	E0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.92	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E0	E0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.22	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E1	E1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.35	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E1	E1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.36	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E10	E10-160923-SS-06-01	0	6	in	Chromium (hexavalent)	2.88	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E10	E10-160923-SS-18-01	12	18	in	Chromium (hexavalent)	2.21	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E9	E9-160923-SS-06-01	0	6	in	Chromium (hexavalent)	2.43	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	E9	E9-160923-SS-18-01	12	18	in	Chromium (hexavalent)	2.43	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F0	F0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.32	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F0	G0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.86	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F0	F0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.3	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F0	F0-160920-SS-18-02	12	18	in	Chromium (hexavalent)	2.31	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	F1	F1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	247	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	F1	F1-160920-SS-12-01	6	12	in	Chromium (hexavalent)	2.38	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F1	F1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.36	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F9	F9-160923-SS-06-01	0	6	in	Chromium (hexavalent)	3.4	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F9	F9-160923-SS-06-02	0	6	in	Chromium (hexavalent)	2.84	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	F9	F9-160923-SS-18-01	12	18	in	Chromium (hexavalent)	2.34	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	G0	G0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.3	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	G1	G1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.48	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	G1	G1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.38	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	G6	G6-160923-SS-18-01	12	18	in	Chromium (hexavalent)	2.31	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H0	H0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.32	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H0	H0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.33	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H1	H1-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.43	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H1	H1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.37	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H2	H2-160412-SS-03-01	0	3	in	Chromium (hexavalent)	2.36	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H2	H2-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.31	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H3	H3-160412-SS-03-01	0	3	in	Chromium (hexavalent)	238	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H3	H3-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.28	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H4	H4-160412-SS-03-01	0	3	in	Chromium (hexavalent)	242	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H4	H4-160921-SS-18-01	12	18	in	Chromium (hexavalent)	9.69	mg/kg	JL	0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	H5	H5-160412-SS-03-01	0	3	in	Chromium (hexavalent)	273	mg/kg	U	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	H5	H5-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.31	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I0	I0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.32	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I0	I0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.29	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I1	I1-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I1	I1-160920-SS-06-02	0	6	in	Chromium (hexavalent)	2.28	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I1	I1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.3	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I10	I10-160921-SS-06-01	0	6	in	Chromium (hexavalent)	5.89	mg/kg	JL	0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	I10	I10-160921-SS-12-01	6	12	in	Chromium (hexavalent)	1.51	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	I10	I10-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.35	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I10	I10-160921-SS-18-02	12	18	in	Chromium (hexavalent)	2.33	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	I2	I2-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I2	I2-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.31	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I3	I3-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.33	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I3	I3-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.29	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I4	I4-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.32	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I4	I4-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.26	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I5	I5-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.32	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I5	I5-160921-SS-06-02	0	6	in	Chromium (hexavalent)	2.32	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I5	I5-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.28	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I6	I6-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.41	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	I6	I6-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.33	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J0	J0-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J0	J0-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J1	J1-160920-SS-06-01	0	6	in	Chromium (hexavalent)	2.29	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J1	J1-160920-SS-18-01	12	18	in	Chromium (hexavalent)	2.25	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J10	J10-160921-SS-06-01	0	6	in	Chromium (hexavalent)	0.964	mg/kg	JL	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	J10	J10-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.41	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J10	J10-160921-SS-18-02	12	18	in	Chromium (hexavalent)	2.35	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J2	J2-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.31	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J2	J2-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J3	J3-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.31	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J3	J3-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J4	J4-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.3	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J4	J4-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.26	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J5	J5-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.3	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J5	J5-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.3	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J6	J6-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.39	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J6	J6-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.27	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J8	J8-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.38	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J8	J8-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.37	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	J9	J9-160921-SS-06-01	0	6	in	Chromium (hexavalent)	2.4	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	J9	J9-160921-SS-18-01	12	18	in	Chromium (hexavalent)	2.37	mg/kg	UJ	0.3	--	6.3	--	0.34	--	1.672	--
Open Area	JSB-01	JSB-1-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.82	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	JSB-01	JSB-1-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.44	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	JSB-03	JSB-3-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.9	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	JSB-03	JSB-3-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	3.6	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	JSB-03	JSB-3-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	1.1	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	JSB-05	JSB-5-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.8	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	JSB-05	JSB-5-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	0.53	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	JSB-05	JSB-5-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.49	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	JSB-07	JSB-7-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.1	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	JSB-07	JSB-7-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	2.1	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	JSB-08	JSB-8-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	12.3	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	JSB-08	JSB-8-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	7.5	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	MW-02	MW-2-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	MW-02	MW-2-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.45	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-03	MW-3-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	2.2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	MW-03	MW-3-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.48	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-04	MW-4-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.63	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-04	MW-4-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	3	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	MW-05	MW-5-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	5.8	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	MW-05	MW-5-0.5-2.0-D	0.5	2	ft	Chromium (hexavalent)	0.46	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-05	MW-5-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.68	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-06	MW-6-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.39	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-06	MW-6-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.41	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-07	MW-7-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.95	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-07	MW-7-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.47	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	MW-08	MW-8-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	4.1	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	MW-08	MW-8-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.34	mg/kg	J	0.3	Yes	6.3	--	0.34	--	1.672	--
Open Area	SS-01	SS-1-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.6	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-01	SS-1-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.46	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--

Table 5-3 Summary of Surface Soil Detections and Screening Level Exceedances for Hexavalent Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	SS-02	SS-2-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	8.6	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	SS-02	SS-2-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	3.4	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	SS-03	SS-3-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	11.9	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	SS-03	SS-3-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	8.6	mg/kg		0.3	Yes	6.3	Yes	0.34	Yes	1.672	Yes
Open Area	SS-04	SS-4-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.86	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-04	SS-4-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	1.1	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-05	SS-5-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.5	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-05	SS-5-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.52	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-06	SS-6-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	2.6	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	SS-06	SS-6-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	0.66	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-07	SS-7-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	1.6	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-07	SS-7-0.5-2.0	0.5	2	ft	Chromium (hexavalent)	2.2	mg/kg		0.3	Yes	6.3	--	0.34	Yes	1.672	Yes
Open Area	SS-08[1]	SS-8-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.36	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--
Open Area	SS-09[1]	SS-9-0.0-0.5	0	0.5	ft	Chromium (hexavalent)	0.45	mg/kg	J	0.3	Yes	6.3	--	0.34	Yes	1.672	--

Notes
1. Surface soil samples SS-08 and SS-09 were collected from the offsite baseball field located south of the site.
ft = Feet/foot.
in = Inch(es).
mg/kg = Milligram per kilogram
J = Analyte was positively identified, but the associated numerical value is estimated.
U = The analyte was not detected at or above the reporting limit.

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	Background	BKG1-161013-SS-06-01	0	6	in	Lead	65.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	Background	BKG1-161013-SS-18-01	6	18	in	Lead	25.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-01	BSB-1-0.0-0.5	0	0.5	ft	Lead	77.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-01	BSB-1-0.5-2.0	0.5	2	ft	Lead	20	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-02	BSB-2-0.0-0.5	0	0.5	ft	Lead	18.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-02	BSB-2-0.5-2.0	0.5	2	ft	Lead	14	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-03	BSB-3-0.0-0.5	0	0.5	ft	Lead	14.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-03	BSB-3-0.5-2.0-D	0.5	2	ft	Lead	12.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-03	BSB-3-0.5-2.0	0.5	2	ft	Lead	12.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-04	BSB-4-0.0-0.5	0	0.5	ft	Lead	20.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-04	BSB-4-0.5-2.0	0.5	2	ft	Lead	14.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-05	BSB-5-0.0-0.5	0	0.5	ft	Lead	14.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-05	BSB-5-0.5-2.0	0.5	2	ft	Lead	12.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-06	BSB-6-0.0-0.5	0	0.5	ft	Lead	26.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-06	BSB-6-0.5-2.0	0.5	2	ft	Lead	15.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-07	BSB-7-0.0-0.5	0	0.5	ft	Lead	19.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-07	BSB-7-0.5-2.0	0.5	2	ft	Lead	14.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-08	BSB-8-0.0-0.5	0	0.5	ft	Lead	22.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	BSB-08	BSB-8-0.5-2.0	0.5	2	ft	Lead	12.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	SO-01	SO-01				Lead	52.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Background	SO-02	SO-02				Lead	24.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A2	A2-160412-SS-03-01	0	3	in	Lead	36.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A2	A2-160412-SS-03-02	0	3	in	Lead	33.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A2	A2-160922-SS-18-01	12	18	in	Lead	13.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A3	A3-160412-SS-03-01	0	3	in	Lead	55.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A3	A3-160922-SS-18-01	12	18	in	Lead	15.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A5	A5-160922-SS-06-01	0	6	in	Lead	70.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A5	A5-160922-SS-18-01	12	18	in	Lead	17.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	A5	A5-160922-SS-18-02	12	18	in	Lead	16.1	mg/kg		400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	A6	A6-160412-SS-03-01	0	3	in	Lead	149	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	A6	A6-160922-SS-18-01	12	18	in	Lead	25.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	ACMW-01	ACMW-1-0.0-0.5	0	0.5	ft	Lead	125	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	ACMW-01	ACMW-1-0.5-2.0	0.5	2	ft	Lead	30.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	ACMW-02	ACMW-2-0.0-0.5	0	0.5	ft	Lead	80.6	mg/kg	J	400	--	800	--	11	Yes	77.3	Yes
Process Area	ACMW-02	ACMW-2-0.5-2.0-D	0.5	2	ft	Lead	19.6	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Process Area	ACMW-02	ACMW-2-0.5-2.0	0.5	2	ft	Lead	18.5	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Process Area	ACMW-04	ACMW-4-0.0-0.5	0	0.5	ft	Lead	16.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	ACMW-04	ACMW-4-0.5-2.0	0.5	2	ft	Lead	18.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	B2	B2-160412-SS-03-01	0	3	in	Lead	209	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	B2	B2-160922-SS-18-01	12	18	in	Lead	18.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	B5	B5-160922-SS-06-01	0	6	in	Lead	46.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	B5	B5-160922-SS-18-01	12	18	in	Lead	15.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	B6	B6-160412-SS-03-01	0	3	in	Lead	446	mg/kg		400	Yes	800	--	11	Yes	77.3	Yes
Process Area	B6	B6-160922-SS-18-01	12	18	in	Lead	20.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	C2	C2-160412-SS-03-01	0	3	in	Lead	1250	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	C2	C2-160922-SS-12-01	6	12	in	Lead	28.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	C2	C2-160922-SS-18-01	12	18	in	Lead	37.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	C5	C5-160922-SS-06-01	0	6	in	Lead	28.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	C5	C5-160922-SS-18-01	12	18	in	Lead	20.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	C6	C6-160412-SS-03-01	0	3	in	Lead	160	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	C6	C6-160922-SS-18-01	12	18	in	Lead	20.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	C7	C7-160412-SS-03-01	0	3	in	Lead	178	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	C7	C7-160921-SS-18-01	12	18	in	Lead	18.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	D2	D2-160412-SS-03-01	0	3	in	Lead	287	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	D2	D2-160922-SS-12-01	6	12	in	Lead	23.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	D2	D2-160922-SS-18-01	12	18	in	Lead	22.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	D5	D5-160922-SS-06-01	0	6	in	Lead	76.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	D5	LPW03-D5-SS-160413-01	0	3	in	Lead	973	mg/kg	JK	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	D5	D5-160922-SS-18-01	12	18	in	Lead	26.3	mg/kg		400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	D6	D6-160412-SS-03-01	0	3	in	Lead	1810	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	D6	D6-160922-SS-12-01	6	12	in	Lead	28.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	D6	D6-160922-SS-18-01	12	18	in	Lead	24.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	D7	D7-160412-SS-03-01	0	3	in	Lead	304	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	D7	D7-160921-SS-18-01	12	18	in	Lead	17	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	DSB-08	DSB-8-0.0-0.5-D	0	0.5	ft	Lead	142	mg/kg	J	400	--	800	--	11	Yes	77.3	Yes
Process Area	DSB-08	DSB-8-0.0-0.5	0	0.5	ft	Lead	258	mg/kg	J	400	--	800	--	11	Yes	77.3	Yes
Process Area	DSB-08	DSB-8-0.5-2.0	0.5	2	ft	Lead	17.4	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Process Area	E2	LPW04-E2-SS-160413-01	0	3	in	Lead	54.5	mg/kg	JK	400	--	800	--	11	Yes	77.3	--
Process Area	E6	E6-160922-SS-06-01	0	6	in	Lead	3740	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	E6	E6-160922-SS-06-02	0	6	in	Lead	2840	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	E6	LPW01-E6-SS-160413-01	0	3	in	Lead	19300	mg/kg	JK	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	E6	LPW01-E6-SS-160413-02	0	3	in	Lead	24500	mg/kg	JK	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	E6	E6-160922-SS-12-01	6	12	in	Lead	99.9	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	E6	E6-160922-SS-18-01	12	18	in	Lead	31.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	E7	E7-160412-SS-03-01	0	3	in	Lead	1470	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	E7	E7-160922-SS-12-01	6	12	in	Lead	27.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	E7	E7-160922-SS-18-01	12	18	in	Lead	57	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	E7	E7-160922-SS-18-02	12	18	in	Lead	26	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	F7	F7-160412-SS-03-01	0	3	in	Lead	5400	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	F7	LPW02-F7-SS-160413-01	0	3	in	Lead	1760	mg/kg	JK	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	F7	F7-160922-SS-12-01	6	12	in	Lead	95.7	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	F7	F7-160922-SS-18-01	12	18	in	Lead	30.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	F7	F7-160922-SS-18-02	12	18	in	Lead	44.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	G3	LPW05-G3-SS-160413-01	0	3	in	Lead	854	mg/kg	JK	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	G5	G5-160412-SS-03-01	0	3	in	Lead	1950	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	G5	G5-160922-SS-12-01	6	12	in	Lead	2890	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	G5	G5-160922-SS-18-01	12	18	in	Lead	174	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	G7	G7-160412-SS-03-01	0	3	in	Lead	4660	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	G7	G7-160923-SS-12-01	6	12	in	Lead	32.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	G7	G7-160923-SS-18-01	12	18	in	Lead	28.8	mg/kg		400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	JSB-02	JSB-2-0.0-0.5	0	0.5	ft	Lead	1850	mg/kg	J	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	JSB-02	JSB-2-0.5-2.0-D	0.5	2	ft	Lead	745	mg/kg	J	400	Yes	800	--	11	Yes	77.3	Yes
Process Area	JSB-02	JSB-2-0.5-2.0	0.5	2	ft	Lead	778	mg/kg	J	400	Yes	800	--	11	Yes	77.3	Yes
Process Area	JSB-04	JSB-4-0.0-0.5	0	0.5	ft	Lead	469	mg/kg		400	Yes	800	--	11	Yes	77.3	Yes
Process Area	JSB-04	JSB-4-0.5-2.0	0.5	2	ft	Lead	51.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	JSB-06	JSB-6-0.0-0.5	0	0.5	ft	Lead	52.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	JSB-06	JSB-6-0.5-2.0	0.5	2	ft	Lead	18.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	JSB-09	JSB-9-0.0-0.5	0	0.5	ft	Lead	34	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	JSB-09	JSB-9-0.5-2.0	0.5	2	ft	Lead	35.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	JSB-10	JSB-10-0.0-0.5	0	0.5	ft	Lead	145	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	JSB-10	JSB-10-0.5-2.0	0.5	2	ft	Lead	18.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	JSB-11	JSB-11-0.0-0.5	0	0.5	ft	Lead	1340	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	JSB-11	JSB-11-0.5-2.0	0.5	2	ft	Lead	30.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	MW-01	MW-1-0-0.5-D	0	0.5	ft	Lead	7850	mg/kg	J	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	MW-01	MW-1-0.0-0.5	0	0.5	ft	Lead	4380	mg/kg	J	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	MW-01	MW-1-0.5-2.0	0.5	2	ft	Lead	2350	mg/kg	J	400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	MW-09	MW-9-0.0-0.5	0	0.5	ft	Lead	519	mg/kg		400	Yes	800	--	11	Yes	77.3	Yes
Process Area	MW-09	MW-9-0.5-2.0	0.5	2	ft	Lead	24.8	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Process Area	MW-10	MW-10-0.0-0.5	0	0.5	ft	Lead	172	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	MW-10	MW-10-0.5-2.0	0.5	2	ft	Lead	111	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	SO-03	SO-03				Lead	1620	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Process Area	SO-04	SO-04				Lead	109	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Process Area	SO-05	SO-05				Lead	60.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Process Area	SO-08	SO-08				Lead	3010	mg/kg		400	Yes	800	Yes	11	Yes	77.3	Yes
Open Area	A0	A0-160920-SS-06-01	0	6	in	Lead	28.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	A0	A0-160920-SS-18-01	12	18	in	Lead	9.33	mg/kg		400	--	800	--	11	--	77.3	--
Open Area	A1	A1-160412-SS-03-01	0	3	in	Lead	36.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	A1	A1-160920-SS-18-01	12	18	in	Lead	8.36	mg/kg	JL	400	--	800	--	11	--	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	A10	A10-160921-SS-06-01	0	6	in	Lead	75.4	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	A10	A10-160921-SS-18-01	12	18	in	Lead	21.3	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	A7	A7-160412-SS-03-01	0	3	in	Lead	105	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	A7	A7-160921-SS-18-01	12	18	in	Lead	25.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	A8	A8-160921-SS-06-01	0	6	in	Lead	23.2	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	A8	A8-160921-SS-18-01	12	18	in	Lead	45.9	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	A9	A9-160921-SS-06-01	0	6	in	Lead	60.4	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	A9	A9-160921-SS-18-01	12	18	in	Lead	20.5	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	A9	A9-160921-SS-18-02	12	18	in	Lead	23.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	ACMW-03	ACMW-3-0.0-0.5	0	0.5	ft	Lead	23.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	ACMW-03	ACMW-3-0.5-2.0	0.5	2	ft	Lead	8.6	mg/kg		400	--	800	--	11	--	77.3	--
Open Area	B0	B0-160920-SS-06-01	0	6	in	Lead	19.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	B0	B0-160920-SS-06-02	0	6	in	Lead	18.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	B0	B0-160920-SS-18-01	12	18	in	Lead	8.94	mg/kg		400	--	800	--	11	--	77.3	--
Open Area	B1	B1-160412-SS-03-01	0	3	in	Lead	28.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	B1	B1-160920-SS-18-01	12	18	in	Lead	12.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	B10	B10-160921-SS-06-01	0	6	in	Lead	65.7	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	B10	B10-160921-SS-18-01	12	18	in	Lead	21.6	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	B7	B7-160412-SS-03-01	0	3	in	Lead	88.9	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	B7	B7-160921-SS-18-01	12	18	in	Lead	18.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	B8	B8-160921-SS-06-01	0	6	in	Lead	194	mg/kg	JL	400	--	800	--	11	Yes	77.3	Yes
Open Area	B8	B8-160921-SS-18-01	12	18	in	Lead	21.7	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	B9	B9-160921-SS-06-01	0	6	in	Lead	84.9	mg/kg	JL	400	--	800	--	11	Yes	77.3	Yes
Open Area	B9	B9-160921-SS-18-01	12	18	in	Lead	20	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	C0	C0-160920-SS-06-01	0	6	in	Lead	20.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	C0	C0-160920-SS-18-01	12	18	in	Lead	12.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	C1	C1-160412-SS-03-01	0	3	in	Lead	32.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	C1	C1-160920-SS-18-01	12	18	in	Lead	13.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	C10	C10-160921-SS-06-01	0	6	in	Lead	61.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	C10	C10-160921-SS-18-01	12	18	in	Lead	8.94	mg/kg	JL	400	--	800	--	11	--	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	C8	C8-160921-SS-06-01	0	6	in	Lead	90.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	Yes
Open Area	C8	C8-160921-SS-18-01	12	18	in	Lead	25.8	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	C9	C9-160921-SS-06-01	0	6	in	Lead	76.3	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	C9	C9-160921-SS-18-01	12	18	in	Lead	4.7	mg/kg	JL	400	--	800	--	11	--	77.3	--
Open Area	D0	D0-160920-SS-06-01	0	6	in	Lead	21.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	D0	D0-160920-SS-06-02	0	6	in	Lead	20.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	D0	D0-160920-SS-18-01	12	18	in	Lead	14	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	D1	D1-160412-SS-03-01	0	3	in	Lead	48.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	D1	D1-160920-SS-18-01	12	18	in	Lead	10.8	mg/kg	JL	400	--	800	--	11	--	77.3	--
Open Area	D10	D10-160921-SS-06-01	0	6	in	Lead	42.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	D10	D10-160921-SS-06-02	0	6	in	Lead	39.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	D10	D10-160921-SS-18-01	12	18	in	Lead	5.81	mg/kg		400	--	800	--	11	--	77.3	--
Open Area	DSB-01	DSB-1-0.0-0.5	0	0.5	ft	Lead	37	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-01	DSB-1-0.5-2.0	0.5	2	ft	Lead	92	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	DSB-02	DSB-2-0.0-0.5	0	0.5	ft	Lead	33.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-02	DSB-2-0.5-2.0	0.5	2	ft	Lead	17.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-03	DSB-3-0.0-0.5	0	0.5	ft	Lead	63.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-03	DSB-3-0.5-2.0	0.5	2	ft	Lead	172	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	DSB-04	DSB-4-0.0-0.5	0	0.5	ft	Lead	14.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-04	DSB-4-0.5-2.0	0.5	2	ft	Lead	21.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-05	DSB-5-0.0-0.5	0	0.5	ft	Lead	109	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	DSB-05	DSB-5-0.5-2.0-D	0.5	2	ft	Lead	18.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-05	DSB-5-0.5-2.0	0.5	2	ft	Lead	15.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-06	DSB-6-0.0-0.5	0	0.5	ft	Lead	15.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-06	DSB-6-0.5-2.0	0.5	2	ft	Lead	16.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-07	DSB-7-0.0-0.5	0	0.5	ft	Lead	28.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-07	DSB-7-0.5-2.0	0.5	2	ft	Lead	15.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	DSB-09	DSB-9-0.0-0.5	0	0.5	ft	Lead	100	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	DSB-09	DSB-9-0.5-2.0	0.5	2	ft	Lead	62.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	E0	E0-160920-SS-06-01	0	6	in	Lead	22.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	E0	E0-160920-SS-18-01	12	18	in	Lead	13	mg/kg		400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	E1	E1-160412-SS-03-01	0	3	in	Lead	154	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	E1	E1-160920-SS-18-01	12	18	in	Lead	12.9	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	E10	E10-160923-SS-06-01	0	6	in	Lead	62.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	E10	E10-160923-SS-18-01	12	18	in	Lead	16.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	E9	E9-160923-SS-06-01	0	6	in	Lead	89.8	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	E9	E9-160923-SS-18-01	12	18	in	Lead	157	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	F0	F0-160920-SS-06-01	0	6	in	Lead	17.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	F0	G0-160920-SS-06-01	0	6	in	Lead	23.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	F0	F0-160920-SS-18-01	12	18	in	Lead	13.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	F0	F0-160920-SS-18-02	12	18	in	Lead	12.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	F1	F1-160412-SS-03-01	0	3	in	Lead	219	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	F1	F1-160920-SS-12-01	6	12	in	Lead	16.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	F1	F1-160920-SS-18-01	12	18	in	Lead	13.9	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	F9	F9-160923-SS-06-01	0	6	in	Lead	86.4	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	F9	F9-160923-SS-06-02	0	6	in	Lead	66.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	F9	F9-160923-SS-18-01	12	18	in	Lead	25.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	G0	G0-160920-SS-18-01	12	18	in	Lead	13.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	G1	G1-160412-SS-03-01	0	3	in	Lead	37.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	G1	G1-160920-SS-18-01	12	18	in	Lead	12.8	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	G6	G6-160923-SS-18-01	12	18	in	Lead	21.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	H0	H0-160920-SS-06-01	0	6	in	Lead	16.3	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	H0	H0-160920-SS-18-01	12	18	in	Lead	16.8	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	H1	H1-160412-SS-03-01	0	3	in	Lead	34.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	H1	H1-160920-SS-18-01	12	18	in	Lead	13	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	H2	H2-160412-SS-03-01	0	3	in	Lead	72.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	H2	H2-160920-SS-18-01	12	18	in	Lead	17.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	H3	H3-160412-SS-03-01	0	3	in	Lead	93.7	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	H3	H3-160920-SS-18-01	12	18	in	Lead	17.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	H4	H4-160412-SS-03-01	0	3	in	Lead	797	mg/kg		400	Yes	800	--	11	Yes	77.3	Yes
Open Area	H4	H4-160921-SS-18-01	12	18	in	Lead	172	mg/kg		400	--	800	--	11	Yes	77.3	Yes

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	H5	H5-160412-SS-03-01	0	3	in	Lead	325	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	H5	H5-160921-SS-18-01	12	18	in	Lead	19.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I0	I0-160920-SS-06-01	0	6	in	Lead	22.4	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	I0	I0-160920-SS-18-01	12	18	in	Lead	14	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	I1	I1-160920-SS-06-01	0	6	in	Lead	20.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	I1	I1-160920-SS-06-02	0	6	in	Lead	22	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	I1	I1-160920-SS-18-01	12	18	in	Lead	10.2	mg/kg	JL	400	--	800	--	11	--	77.3	--
Open Area	I10	I10-160921-SS-06-01	0	6	in	Lead	339	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	I10	I10-160921-SS-12-01	6	12	in	Lead	20	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I10	I10-160921-SS-18-01	12	18	in	Lead	13.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I10	I10-160921-SS-18-02	12	18	in	Lead	15	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I2	I2-160921-SS-06-01	0	6	in	Lead	23.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I2	I2-160921-SS-18-01	12	18	in	Lead	15.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I3	I3-160921-SS-06-01	0	6	in	Lead	25.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I3	I3-160921-SS-18-01	12	18	in	Lead	15.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I4	I4-160921-SS-06-01	0	6	in	Lead	24.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I4	I4-160921-SS-18-01	12	18	in	Lead	15	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I5	I5-160921-SS-06-01	0	6	in	Lead	27.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I5	I5-160921-SS-06-02	0	6	in	Lead	28.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I5	I5-160921-SS-18-01	12	18	in	Lead	14.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I6	I6-160921-SS-06-01	0	6	in	Lead	30.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	I6	I6-160921-SS-18-01	12	18	in	Lead	11.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J0	J0-160920-SS-06-01	0	6	in	Lead	22.2	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	J0	J0-160920-SS-18-01	12	18	in	Lead	13.8	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	J1	J1-160920-SS-06-01	0	6	in	Lead	14.6	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	J1	J1-160920-SS-18-01	12	18	in	Lead	11.1	mg/kg	JL	400	--	800	--	11	Yes	77.3	--
Open Area	J10	J10-160921-SS-06-01	0	6	in	Lead	71.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J10	J10-160921-SS-18-01	12	18	in	Lead	13.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J10	J10-160921-SS-18-02	12	18	in	Lead	13.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J2	J2-160921-SS-06-01	0	6	in	Lead	22.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J2	J2-160921-SS-18-01	12	18	in	Lead	13.8	mg/kg		400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	J3	J3-160921-SS-06-01	0	6	in	Lead	24.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J3	J3-160921-SS-18-01	12	18	in	Lead	293	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	J4	J4-160921-SS-06-01	0	6	in	Lead	22.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J4	J4-160921-SS-18-01	12	18	in	Lead	14.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J5	J5-160921-SS-06-01	0	6	in	Lead	23.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J5	J5-160921-SS-18-01	12	18	in	Lead	16.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J6	J6-160921-SS-06-01	0	6	in	Lead	25.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J6	J6-160921-SS-18-01	12	18	in	Lead	10.6	mg/kg		400	--	800	--	11	--	77.3	--
Open Area	J8	J8-160921-SS-06-01	0	6	in	Lead	34.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J8	J8-160921-SS-18-01	12	18	in	Lead	12.1	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J9	J9-160921-SS-06-01	0	6	in	Lead	29.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	J9	J9-160921-SS-18-01	12	18	in	Lead	12.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-01	JSB-1-0.0-0.5	0	0.5	ft	Lead	78.6	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	JSB-01	JSB-1-0.5-2.0	0.5	2	ft	Lead	41.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-03	JSB-3-0.0-0.5	0	0.5	ft	Lead	29.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-03	JSB-3-0.5-2.0-D	0.5	2	ft	Lead	13.8	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-03	JSB-3-0.5-2.0	0.5	2	ft	Lead	15	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-05	JSB-5-0.0-0.5	0	0.5	ft	Lead	22.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-05	JSB-5-0.5-2.0-D	0.5	2	ft	Lead	14.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-05	JSB-5-0.5-2.0	0.5	2	ft	Lead	13.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-07	JSB-7-0.0-0.5	0	0.5	ft	Lead	84	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	JSB-07	JSB-7-0.5-2.0	0.5	2	ft	Lead	39.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-08	JSB-8-0.0-0.5	0	0.5	ft	Lead	61.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	JSB-08	JSB-8-0.5-2.0	0.5	2	ft	Lead	43.9	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-02	MW-2-0.0-0.5	0	0.5	ft	Lead	90.1	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	MW-02	MW-2-0.5-2.0	0.5	2	ft	Lead	57.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-03	MW-3-0.0-0.5	0	0.5	ft	Lead	85.7	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	MW-03	MW-3-0.5-2.0	0.5	2	ft	Lead	37.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-04	MW-4-0.0-0.5	0	0.5	ft	Lead	52.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-04	MW-4-0.5-2.0	0.5	2	ft	Lead	13.1	mg/kg		400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	MW-05	MW-5-0.0-0.5	0	0.5	ft	Lead	13.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-05	MW-5-0.5-2.0-D	0.5	2	ft	Lead	13.3	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-05	MW-5-0.5-2.0	0.5	2	ft	Lead	14.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-06	MW-6-0.0-0.5	0	0.5	ft	Lead	13.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-06	MW-6-0.5-2.0	0.5	2	ft	Lead	13.2	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-07	MW-7-0.0-0.5	0	0.5	ft	Lead	23.6	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-07	MW-7-0.5-2.0	0.5	2	ft	Lead	16.5	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-08	MW-8-0.0-0.5	0	0.5	ft	Lead	15.4	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	MW-08	MW-8-0.5-2.0	0.5	2	ft	Lead	7.8	mg/kg		400	--	800	--	11	--	77.3	--
Open Area	SO-06	SO-06				Lead	171	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	SO-07	SO-07				Lead	149	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	SS-01	SS-1-0.0-0.5	0	0.5	ft	Lead	41.8	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-01	SS-1-0.5-2.0	0.5	2	ft	Lead	18.2	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-02	SS-2-0.0-0.5	0	0.5	ft	Lead	49.7	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-02	SS-2-0.5-2.0	0.5	2	ft	Lead	22.5	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-03	SS-3-0.0-0.5	0	0.5	ft	Lead	50.6	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-03	SS-3-0.5-2.0	0.5	2	ft	Lead	77.4	mg/kg	J	400	--	800	--	11	Yes	77.3	Yes
Open Area	SS-04	SS-4-0.0-0.5	0	0.5	ft	Lead	54	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-04	SS-4-0.5-2.0	0.5	2	ft	Lead	42.4	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-05	SS-5-0.0-0.5	0	0.5	ft	Lead	47.2	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-05	SS-5-0.5-2.0	0.5	2	ft	Lead	26.9	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-06	SS-6-0.0-0.5	0	0.5	ft	Lead	95.4	mg/kg		400	--	800	--	11	Yes	77.3	Yes
Open Area	SS-06	SS-6-0.5-2.0	0.5	2	ft	Lead	54.7	mg/kg		400	--	800	--	11	Yes	77.3	--
Open Area	SS-07	SS-7-0.0-0.5-D	0	0.5	ft	Lead	29.9	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-07	SS-7-0.0-0.5	0	0.5	ft	Lead	34.7	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-07	SS-7-0.5-2.0	0.5	2	ft	Lead	17.2	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-08[1]	SS-8-0.0-0.5-D	0	0.5	ft	Lead	24.9	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-08[1]	SS-8-0.0-0.5	0	0.5	ft	Lead	24.7	mg/kg	J	400	--	800	--	11	Yes	77.3	--

Table 5-4 Summary of Surface Soil Detections and Screening Level Exceedances for Lead

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	SS-09[1]	SS-9-0.0-0.5-D	0	0.5	ft	Lead	24.1	mg/kg	J	400	--	800	--	11	Yes	77.3	--
Open Area	SS-09[1]	SS-9-0.0-0.5	0	0.5	ft	Lead	23.5	mg/kg	J	400	--	800	--	11	Yes	77.3	--

Notes
1. Surface soil samples SS-08 and SS-09 were collected from the offsite baseball field located south of the site.
ft = Feet/foot.
in = Inch(es).
mg/kg = Milligram per kilogram.
J = Analyte was positively identified, but the associated numerical value is estimated.
K = Numerical value is biased high.
L = Numerical value is biased low.

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	Background	BKG1-161013-SS-06-01	0	6	in	Mercury	0.0413	mg/kg		23	--	350	--	0.1	--	NS	--
Background	Background	BKG1-161013-SS-18-01	6	18	in	Mercury	0.0183	mg/kg		23	--	350	--	0.1	--	NS	--
Background	BSB-01	BSB-1-0.0-0.5	0	0.5	ft	Mercury	0.09	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-01	BSB-1-0.5-2.0	0.5	2	ft	Mercury	0.092	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-02	BSB-2-0.0-0.5	0	0.5	ft	Mercury	0.094	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-02	BSB-2-0.5-2.0	0.5	2	ft	Mercury	0.091	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-03	BSB-3-0.0-0.5	0	0.5	ft	Mercury	0.088	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-03	BSB-3-0.5-2.0-D	0.5	2	ft	Mercury	0.085	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-03	BSB-3-0.5-2.0	0.5	2	ft	Mercury	0.088	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-04	BSB-4-0.0-0.5	0	0.5	ft	Mercury	0.079	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-04	BSB-4-0.5-2.0	0.5	2	ft	Mercury	0.08	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-05	BSB-5-0.0-0.5	0	0.5	ft	Mercury	0.076	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-05	BSB-5-0.5-2.0	0.5	2	ft	Mercury	0.077	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-06	BSB-6-0.0-0.5	0	0.5	ft	Mercury	0.101	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-06	BSB-6-0.5-2.0	0.5	2	ft	Mercury	0.08	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-07	BSB-7-0.0-0.5	0	0.5	ft	Mercury	0.094	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-07	BSB-7-0.5-2.0	0.5	2	ft	Mercury	0.092	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-08	BSB-8-0.0-0.5	0	0.5	ft	Mercury	0.084	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	BSB-08	BSB-8-0.5-2.0	0.5	2	ft	Mercury	0.079	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	SO-01	SO-01				Mercury	0.074	mg/kg	U	23	--	350	--	0.1	--	NS	--
Background	SO-02	SO-02				Mercury	0.069	mg/kg	U	23	--	350	--	0.1	--	NS	--
Process Area	A2	A2-160412-SS-03-01	0	3	in	Mercury	0.398	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	A2	A2-160412-SS-03-02	0	3	in	Mercury	0.47	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	A2	A2-160922-SS-18-01	12	18	in	Mercury	0.035	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	A3	A3-160412-SS-03-01	0	3	in	Mercury	0.776	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	A3	A3-160922-SS-18-01	12	18	in	Mercury	0.0266	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	A5	A5-160922-SS-06-01	0	6	in	Mercury	0.0857	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	A5	A5-160922-SS-18-01	12	18	in	Mercury	0.0184	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	A5	A5-160922-SS-18-02	12	18	in	Mercury	0.0312	mg/kg		23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	A6	A6-160412-SS-03-01	0	3	in	Mercury	0.54	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	A6	A6-160922-SS-18-01	12	18	in	Mercury	0.0285	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	ACMW-01	ACMW-1-0.0-0.5	0	0.5	ft	Mercury	27	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	ACMW-01	ACMW-1-0.5-2.0	0.5	2	ft	Mercury	0.88	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	ACMW-02	ACMW-2-0.0-0.5	0	0.5	ft	Mercury	0.4	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	ACMW-02	ACMW-2-0.5-2.0-D	0.5	2	ft	Mercury	0.13	mg/kg	U	23	--	350	--	0.1	--	NS	--
Process Area	ACMW-02	ACMW-2-0.5-2.0	0.5	2	ft	Mercury	0.18	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	ACMW-04	ACMW-4-0.0-0.5	0	0.5	ft	Mercury	0.068	mg/kg	U	23	--	350	--	0.1	--	NS	--
Process Area	ACMW-04	ACMW-4-0.5-2.0	0.5	2	ft	Mercury	0.1	mg/kg	U	23	--	350	--	0.1	--	NS	--
Process Area	B2	B2-160412-SS-03-01	0	3	in	Mercury	4020	ug/kg	UJ	23	--	350	--	0.1	--	NS	--
Process Area	B2	B2-160922-SS-18-01	12	18	in	Mercury	0.181	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	B5	B5-160922-SS-06-01	0	6	in	Mercury	0.259	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	B5	B5-160922-SS-18-01	12	18	in	Mercury	0.0359	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	B6	B6-160412-SS-03-01	0	3	in	Mercury	0.646	mg/kg	JH	23	--	350	--	0.1	Yes	NS	--
Process Area	B6	B6-160922-SS-18-01	12	18	in	Mercury	0.027	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	C2	C2-160412-SS-03-01	0	3	in	Mercury	113	mg/kg	JK	23	Yes	350	--	0.1	Yes	NS	--
Process Area	C2	C2-160922-SS-12-01	6	12	in	Mercury	0.597	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C2	C2-160922-SS-18-01	12	18	in	Mercury	2.13	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C5	C5-160922-SS-06-01	0	6	in	Mercury	0.353	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C5	C5-160922-SS-18-01	12	18	in	Mercury	5.52	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C6	C6-160412-SS-03-01	0	3	in	Mercury	1.08	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C6	C6-160922-SS-18-01	12	18	in	Mercury	0.627	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C7	C7-160412-SS-03-01	0	3	in	Mercury	1.02	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	C7	C7-160921-SS-18-01	12	18	in	Mercury	0.0391	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	D2	D2-160412-SS-03-01	0	3	in	Mercury	26.8	mg/kg	JK	23	Yes	350	--	0.1	Yes	NS	--
Process Area	D2	D2-160922-SS-12-01	6	12	in	Mercury	4.84	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	D2	D2-160922-SS-18-01	12	18	in	Mercury	4.07	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	D5	D5-160922-SS-06-01	0	6	in	Mercury	0.898	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	D5	LPW03-D5-SS-160413-01	0	3	in	Mercury	5.86	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	D5	D5-160922-SS-18-01	12	18	in	Mercury	0.025	mg/kg		23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	D6	D6-160412-SS-03-01	0	3	in	Mercury	25.7	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	D6	D6-160922-SS-12-01	6	12	in	Mercury	0.45	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	D6	D6-160922-SS-18-01	12	18	in	Mercury	0.0615	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	D7	D7-160412-SS-03-01	0	3	in	Mercury	13	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	D7	D7-160921-SS-18-01	12	18	in	Mercury	0.0608	mg/kg		23	--	350	--	0.1	--	NS	--
Process Area	DSB-08	DSB-8-0.0-0.5-D	0	0.5	ft	Mercury	1.5	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	DSB-08	DSB-8-0.0-0.5	0	0.5	ft	Mercury	4	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	DSB-08	DSB-8-0.5-2.0	0.5	2	ft	Mercury	0.043	mg/kg	J	23	--	350	--	0.1	--	NS	--
Process Area	E2	LPW04-E2-SS-160413-01	0	3	in	Mercury	2.32	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	E6	E6-160922-SS-06-01	0	6	in	Mercury	77.8	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	E6	E6-160922-SS-06-02	0	6	in	Mercury	75.6	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	E6	LPW01-E6-SS-160413-01	0	3	in	Mercury	2150	ug/kg	UJ	23	--	350	--	0.1	--	NS	--
Process Area	E6	LPW01-E6-SS-160413-02	0	3	in	Mercury	97.8	mg/kg	JK	23	Yes	350	--	0.1	Yes	NS	--
Process Area	E6	E6-160922-SS-12-01	6	12	in	Mercury	1.55	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	E6	E6-160922-SS-18-01	12	18	in	Mercury	0.322	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	E7	E7-160412-SS-03-01	0	3	in	Mercury	24.6	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	E7	E7-160922-SS-12-01	6	12	in	Mercury	0.144	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	E7	E7-160922-SS-18-01	12	18	in	Mercury	0.361	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	E7	E7-160922-SS-18-02	12	18	in	Mercury	0.24	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	F7	F7-160412-SS-03-01	0	3	in	Mercury	32.4	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	F7	LPW02-F7-SS-160413-01	0	3	in	Mercury	22.4	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Process Area	F7	F7-160922-SS-12-01	6	12	in	Mercury	4.02	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	F7	F7-160922-SS-18-01	12	18	in	Mercury	0.388	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	F7	F7-160922-SS-18-02	12	18	in	Mercury	0.921	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	G3	LPW05-G3-SS-160413-01	0	3	in	Mercury	35	mg/kg	JK	23	Yes	350	--	0.1	Yes	NS	--
Process Area	G5	G5-160412-SS-03-01	0	3	in	Mercury	41.7	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	G5	G5-160922-SS-12-01	6	12	in	Mercury	1.01	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	G5	G5-160922-SS-18-01	12	18	in	Mercury	1.61	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	G7	G7-160412-SS-03-01	0	3	in	Mercury	36.4	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	G7	G7-160923-SS-12-01	6	12	in	Mercury	3.74	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	G7	G7-160923-SS-18-01	12	18	in	Mercury	1.89	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-02	JSB-2-0.0-0.5	0	0.5	ft	Mercury	17.1	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-02	JSB-2-0.5-2.0-D	0.5	2	ft	Mercury	8.3	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-02	JSB-2-0.5-2.0	0.5	2	ft	Mercury	18	mg/kg		23	--	350	--	0.1	Yes	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	JSB-04	JSB-4-0.0-0.5	0	0.5	ft	Mercury	144	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	JSB-04	JSB-4-0.5-2.0	0.5	2	ft	Mercury	1.5	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-06	JSB-6-0.0-0.5	0	0.5	ft	Mercury	2	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-06	JSB-6-0.5-2.0	0.5	2	ft	Mercury	0.206	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-09	JSB-9-0.0-0.5	0	0.5	ft	Mercury	0.14	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-09	JSB-9-0.5-2.0	0.5	2	ft	Mercury	0.012	mg/kg	J	23	--	350	--	0.1	--	NS	--
Process Area	JSB-10	JSB-10-0.0-0.5	0	0.5	ft	Mercury	0.31	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	JSB-10	JSB-10-0.5-2.0	0.5	2	ft	Mercury	0.12	mg/kg	U	23	--	350	--	0.1	--	NS	--
Process Area	JSB-11	JSB-11-0.0-0.5	0	0.5	ft	Mercury	41.8	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	JSB-11	JSB-11-0.5-2.0	0.5	2	ft	Mercury	0.66	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	MW-01	MW-1-0-0.5-D	0	0.5	ft	Mercury	52.4	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	MW-01	MW-1-0.0-0.5	0	0.5	ft	Mercury	57.5	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	MW-01	MW-1-0.5-2.0	0.5	2	ft	Mercury	8.7	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	MW-09	MW-9-0.0-0.5	0	0.5	ft	Mercury	2.8	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	MW-09	MW-9-0.5-2.0	0.5	2	ft	Mercury	0.22	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	MW-10	MW-10-0.0-0.5	0	0.5	ft	Mercury	7.11	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	MW-10	MW-10-0.5-2.0	0.5	2	ft	Mercury	2.11	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	SO-03	SO-03				Mercury	32.6	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Process Area	SO-04	SO-04				Mercury	6.63	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	SO-05	SO-05				Mercury	5.37	mg/kg		23	--	350	--	0.1	Yes	NS	--
Process Area	SO-08	SO-08				Mercury	54.6	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Open Area	A0	A0-160920-SS-06-01	0	6	in	Mercury	0.0806	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	A0	A0-160920-SS-18-01	12	18	in	Mercury	0.0149	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	A1	A1-160412-SS-03-01	0	3	in	Mercury	0.153	mg/kg	JH	23	--	350	--	0.1	Yes	NS	--
Open Area	A1	A1-160920-SS-18-01	12	18	in	Mercury	0.016	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	A10	A10-160921-SS-06-01	0	6	in	Mercury	0.194	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	A10	A10-160921-SS-18-01	12	18	in	Mercury	0.0402	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	A7	A7-160412-SS-03-01	0	3	in	Mercury	0.622	mg/kg	JK	23	--	350	--	0.1	Yes	NS	--
Open Area	A7	A7-160921-SS-18-01	12	18	in	Mercury	0.0579	mg/kg		23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	A8	A8-160921-SS-06-01	0	6	in	Mercury	0.167	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	A8	A8-160921-SS-18-01	12	18	in	Mercury	0.41	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	A9	A9-160921-SS-06-01	0	6	in	Mercury	0.286	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	A9	A9-160921-SS-18-01	12	18	in	Mercury	0.0323	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	A9	A9-160921-SS-18-02	12	18	in	Mercury	0.0192	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	ACMW-03	ACMW-3-0.0-0.5	0	0.5	ft	Mercury	0.086	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	ACMW-03	ACMW-3-0.5-2.0	0.5	2	ft	Mercury	0.087	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	B0	B0-160920-SS-06-01	0	6	in	Mercury	0.0848	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	B0	B0-160920-SS-06-02	0	6	in	Mercury	0.0769	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	B0	B0-160920-SS-18-01	12	18	in	Mercury	0.0172	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	B1	B1-160412-SS-03-01	0	3	in	Mercury	0.242	mg/kg	JH	23	--	350	--	0.1	Yes	NS	--
Open Area	B1	B1-160920-SS-18-01	12	18	in	Mercury	0.0341	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	B10	B10-160921-SS-06-01	0	6	in	Mercury	0.0802	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	B10	B10-160921-SS-18-01	12	18	in	Mercury	0.0216	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	B7	B7-160412-SS-03-01	0	3	in	Mercury	2.33	mg/kg	JH	23	--	350	--	0.1	Yes	NS	--
Open Area	B7	B7-160921-SS-18-01	12	18	in	Mercury	0.0455	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	B8	B8-160921-SS-06-01	0	6	in	Mercury	0.341	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	B8	B8-160921-SS-18-01	12	18	in	Mercury	0.529	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	B9	B9-160921-SS-06-01	0	6	in	Mercury	0.102	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	B9	B9-160921-SS-18-01	12	18	in	Mercury	0.0149	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	C0	C0-160920-SS-06-01	0	6	in	Mercury	0.117	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	C0	C0-160920-SS-18-01	12	18	in	Mercury	0.017	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	C1	C1-160412-SS-03-01	0	3	in	Mercury	1.49	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	C1	C1-160920-SS-18-01	12	18	in	Mercury	0.0497	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	C10	C10-160921-SS-06-01	0	6	in	Mercury	0.71	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	C10	C10-160921-SS-18-01	12	18	in	Mercury	0.0386	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	C8	C8-160921-SS-06-01	0	6	in	Mercury	0.577	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	C8	C8-160921-SS-18-01	12	18	in	Mercury	1.04	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	C9	C9-160921-SS-06-01	0	6	in	Mercury	0.165	mg/kg	JL	23	--	350	--	0.1	Yes	NS	--
Open Area	C9	C9-160921-SS-18-01	12	18	in	Mercury	0.00814	mg/kg	JL	23	--	350	--	0.1	--	NS	--
Open Area	D0	D0-160920-SS-06-01	0	6	in	Mercury	0.21	mg/kg		23	--	350	--	0.1	Yes	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	D0	D0-160920-SS-06-02	0	6	in	Mercury	0.204	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	D0	D0-160920-SS-18-01	12	18	in	Mercury	0.0503	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	D1	D1-160412-SS-03-01	0	3	in	Mercury	3.13	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	D1	D1-160920-SS-18-01	12	18	in	Mercury	0.166	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	D10	D10-160921-SS-06-01	0	6	in	Mercury	0.211	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	D10	D10-160921-SS-06-02	0	6	in	Mercury	0.219	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	D10	D10-160921-SS-18-01	12	18	in	Mercury	0.00829	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	DSB-01	DSB-1-0.0-0.5	0	0.5	ft	Mercury	0.073	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	DSB-01	DSB-1-0.5-2.0	0.5	2	ft	Mercury	0.04	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	DSB-02	DSB-2-0.0-0.5	0	0.5	ft	Mercury	0.31	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-02	DSB-2-0.5-2.0	0.5	2	ft	Mercury	0.061	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	DSB-03	DSB-3-0.0-0.5	0	0.5	ft	Mercury	7.4	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-03	DSB-3-0.5-2.0	0.5	2	ft	Mercury	10.7	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-04	DSB-4-0.0-0.5	0	0.5	ft	Mercury	0.58	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-04	DSB-4-0.5-2.0	0.5	2	ft	Mercury	0.039	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	DSB-05	DSB-5-0.0-0.5	0	0.5	ft	Mercury	1.9	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-05	DSB-5-0.5-2.0-D	0.5	2	ft	Mercury	0.057	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	DSB-05	DSB-5-0.5-2.0	0.5	2	ft	Mercury	0.02	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	DSB-06	DSB-6-0.0-0.5	0	0.5	ft	Mercury	0.14	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-06	DSB-6-0.5-2.0	0.5	2	ft	Mercury	0.02	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	DSB-07	DSB-7-0.0-0.5	0	0.5	ft	Mercury	0.26	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-07	DSB-7-0.5-2.0	0.5	2	ft	Mercury	0.028	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	DSB-09	DSB-9-0.0-0.5	0	0.5	ft	Mercury	2.6	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	DSB-09	DSB-9-0.5-2.0	0.5	2	ft	Mercury	0.65	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	E0	E0-160920-SS-06-01	0	6	in	Mercury	0.258	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	E0	E0-160920-SS-18-01	12	18	in	Mercury	0.0273	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	E1	E1-160412-SS-03-01	0	3	in	Mercury	24.4	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Open Area	E1	E1-160920-SS-18-01	12	18	in	Mercury	0.272	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	E10	E10-160923-SS-06-01	0	6	in	Mercury	0.263	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	E10	E10-160923-SS-18-01	12	18	in	Mercury	0.0292	mg/kg		23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	E9	E9-160923-SS-06-01	0	6	in	Mercury	0.113	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	E9	E9-160923-SS-18-01	12	18	in	Mercury	0.0224	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	F0	F0-160920-SS-06-01	0	6	in	Mercury	0.151	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	F0	G0-160920-SS-06-01	0	6	in	Mercury	0.214	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	F0	F0-160920-SS-18-01	12	18	in	Mercury	0.0244	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	F0	F0-160920-SS-18-02	12	18	in	Mercury	0.038	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	F1	F1-160412-SS-03-01	0	3	in	Mercury	36.5	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Open Area	F1	F1-160920-SS-12-01	6	12	in	Mercury	0.453	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	F1	F1-160920-SS-18-01	12	18	in	Mercury	2.56	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	F9	F9-160923-SS-06-01	0	6	in	Mercury	0.462	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	F9	F9-160923-SS-06-02	0	6	in	Mercury	0.42	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	F9	F9-160923-SS-18-01	12	18	in	Mercury	0.119	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	G0	G0-160920-SS-18-01	12	18	in	Mercury	0.0276	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	G1	G1-160412-SS-03-01	0	3	in	Mercury	1.14	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	G1	G1-160920-SS-18-01	12	18	in	Mercury	0.273	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	G6	G6-160923-SS-18-01	12	18	in	Mercury	2.94	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H0	H0-160920-SS-06-01	0	6	in	Mercury	0.23	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H0	H0-160920-SS-18-01	12	18	in	Mercury	0.0221	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	H1	H1-160412-SS-03-01	0	3	in	Mercury	1.17	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H1	H1-160920-SS-18-01	12	18	in	Mercury	0.0332	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	H2	H2-160412-SS-03-01	0	3	in	Mercury	1.95	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H2	H2-160920-SS-18-01	12	18	in	Mercury	0.0765	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	H3	H3-160412-SS-03-01	0	3	in	Mercury	6.52	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H3	H3-160920-SS-18-01	12	18	in	Mercury	0.309	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H4	H4-160412-SS-03-01	0	3	in	Mercury	25.7	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Open Area	H4	H4-160921-SS-18-01	12	18	in	Mercury	4.64	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	H5	H5-160412-SS-03-01	0	3	in	Mercury	44.2	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Open Area	H5	H5-160921-SS-18-01	12	18	in	Mercury	0.981	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I0	I0-160920-SS-06-01	0	6	in	Mercury	0.182	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I0	I0-160920-SS-18-01	12	18	in	Mercury	0.0423	mg/kg		23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	I1	I1-160920-SS-06-01	0	6	in	Mercury	0.277	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I1	I1-160920-SS-06-02	0	6	in	Mercury	0.266	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I1	I1-160920-SS-18-01	12	18	in	Mercury	0.0271	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	I10	I10-160921-SS-06-01	0	6	in	Mercury	46.2	mg/kg		23	Yes	350	--	0.1	Yes	NS	--
Open Area	I10	I10-160921-SS-12-01	6	12	in	Mercury	2.44	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I10	I10-160921-SS-18-01	12	18	in	Mercury	0.432	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I10	I10-160921-SS-18-02	12	18	in	Mercury	0.511	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I2	I2-160921-SS-06-01	0	6	in	Mercury	0.237	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I2	I2-160921-SS-18-01	12	18	in	Mercury	0.0594	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	I3	I3-160921-SS-06-01	0	6	in	Mercury	0.335	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I3	I3-160921-SS-18-01	12	18	in	Mercury	0.0765	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	I4	I4-160921-SS-06-01	0	6	in	Mercury	0.324	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I4	I4-160921-SS-18-01	12	18	in	Mercury	0.0843	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	I5	I5-160921-SS-06-01	0	6	in	Mercury	0.379	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I5	I5-160921-SS-06-02	0	6	in	Mercury	0.00413	mg/kg	UJ	23	--	350	--	0.1	--	NS	--
Open Area	I5	I5-160921-SS-18-01	12	18	in	Mercury	0.0396	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	I6	I6-160921-SS-06-01	0	6	in	Mercury	0.574	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	I6	I6-160921-SS-18-01	12	18	in	Mercury	0.02	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J0	J0-160920-SS-06-01	0	6	in	Mercury	0.124	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J0	J0-160920-SS-18-01	12	18	in	Mercury	0.0276	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J1	J1-160920-SS-06-01	0	6	in	Mercury	0.161	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J1	J1-160920-SS-18-01	12	18	in	Mercury	0.0381	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J10	J10-160921-SS-06-01	0	6	in	Mercury	0.813	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J10	J10-160921-SS-18-01	12	18	in	Mercury	0.033	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J10	J10-160921-SS-18-02	12	18	in	Mercury	0.0325	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J2	J2-160921-SS-06-01	0	6	in	Mercury	0.172	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J2	J2-160921-SS-18-01	12	18	in	Mercury	0.0287	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J3	J3-160921-SS-06-01	0	6	in	Mercury	0.162	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J3	J3-160921-SS-18-01	12	18	in	Mercury	0.0329	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J4	J4-160921-SS-06-01	0	6	in	Mercury	0.168	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J4	J4-160921-SS-18-01	12	18	in	Mercury	0.0357	mg/kg		23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	J5	J5-160921-SS-06-01	0	6	in	Mercury	0.201	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J5	J5-160921-SS-18-01	12	18	in	Mercury	0.0885	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J6	J6-160921-SS-06-01	0	6	in	Mercury	0.34	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J6	J6-160921-SS-18-01	12	18	in	Mercury	0.0221	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J8	J8-160921-SS-06-01	0	6	in	Mercury	0.584	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J8	J8-160921-SS-18-01	12	18	in	Mercury	0.0384	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	J9	J9-160921-SS-06-01	0	6	in	Mercury	0.247	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	J9	J9-160921-SS-18-01	12	18	in	Mercury	0.0188	mg/kg		23	--	350	--	0.1	--	NS	--
Open Area	JSB-01	JSB-1-0.0-0.5	0	0.5	ft	Mercury	0.11	mg/kg	J	23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-01	JSB-1-0.5-2.0	0.5	2	ft	Mercury	0.038	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	JSB-03	JSB-3-0.0-0.5	0	0.5	ft	Mercury	0.45	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-03	JSB-3-0.5-2.0-D	0.5	2	ft	Mercury	0.045	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	JSB-03	JSB-3-0.5-2.0	0.5	2	ft	Mercury	0.024	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	JSB-05	JSB-5-0.0-0.5	0	0.5	ft	Mercury	0.441	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-05	JSB-5-0.5-2.0-D	0.5	2	ft	Mercury	0.115	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-05	JSB-5-0.5-2.0	0.5	2	ft	Mercury	0.072	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	JSB-07	JSB-7-0.0-0.5	0	0.5	ft	Mercury	0.26	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-07	JSB-7-0.5-2.0	0.5	2	ft	Mercury	0.26	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-08	JSB-8-0.0-0.5	0	0.5	ft	Mercury	0.77	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	JSB-08	JSB-8-0.5-2.0	0.5	2	ft	Mercury	0.053	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	MW-02	MW-2-0.0-0.5	0	0.5	ft	Mercury	0.079	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	MW-02	MW-2-0.5-2.0	0.5	2	ft	Mercury	0.061	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	MW-03	MW-3-0.0-0.5	0	0.5	ft	Mercury	0.14	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	MW-03	MW-3-0.5-2.0	0.5	2	ft	Mercury	0.088	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	MW-04	MW-4-0.0-0.5	0	0.5	ft	Mercury	0.038	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	MW-04	MW-4-0.5-2.0	0.5	2	ft	Mercury	0.036	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	MW-05	MW-5-0.0-0.5	0	0.5	ft	Mercury	0.032	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	MW-05	MW-5-0.5-2.0-D	0.5	2	ft	Mercury	0.064	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	MW-05	MW-5-0.5-2.0	0.5	2	ft	Mercury	0.034	mg/kg	LJ	23	--	350	--	0.1	--	NS	--
Open Area	MW-06	MW-6-0.0-0.5	0	0.5	ft	Mercury	0.029	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	MW-06	MW-6-0.5-2.0	0.5	2	ft	Mercury	0.044	mg/kg	J	23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	MW-07	MW-7-0.0-0.5	0	0.5	ft	Mercury	0.052	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	MW-07	MW-7-0.5-2.0	0.5	2	ft	Mercury	0.013	mg/kg	J	23	--	350	--	0.1	--	NS	--
Open Area	MW-08	MW-8-0.0-0.5	0	0.5	ft	Mercury	0.089	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	MW-08	MW-8-0.5-2.0	0.5	2	ft	Mercury	0.089	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	SO-06	SO-06				Mercury	6.18	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SO-07	SO-07				Mercury	0.2	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-01	SS-1-0.0-0.5	0	0.5	ft	Mercury	0.67	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-01	SS-1-0.5-2.0	0.5	2	ft	Mercury	0.11	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	SS-02	SS-2-0.0-0.5	0	0.5	ft	Mercury	1.6	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-02	SS-2-0.5-2.0	0.5	2	ft	Mercury	0.54	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-03	SS-3-0.0-0.5	0	0.5	ft	Mercury	7.6	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-03	SS-3-0.5-2.0	0.5	2	ft	Mercury	0.97	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-04	SS-4-0.0-0.5	0	0.5	ft	Mercury	0.18	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-04	SS-4-0.5-2.0	0.5	2	ft	Mercury	0.14	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-05	SS-5-0.0-0.5	0	0.5	ft	Mercury	0.53	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-05	SS-5-0.5-2.0	0.5	2	ft	Mercury	0.13	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-06	SS-6-0.0-0.5	0	0.5	ft	Mercury	0.3	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-06	SS-6-0.5-2.0	0.5	2	ft	Mercury	0.22	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-07	SS-7-0.0-0.5-D	0	0.5	ft	Mercury	0.27	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-07	SS-7-0.0-0.5	0	0.5	ft	Mercury	0.28	mg/kg		23	--	350	--	0.1	Yes	NS	--
Open Area	SS-07	SS-7-0.5-2.0	0.5	2	ft	Mercury	0.11	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	SS-08[1]	SS-8-0.0-0.5-D	0	0.5	ft	Mercury	0.12	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	SS-08[1]	SS-8-0.0-0.5	0	0.5	ft	Mercury	0.12	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	SS-09[1]	SS-9-0.0-0.5-D	0	0.5	ft	Mercury	0.12	mg/kg	U	23	--	350	--	0.1	--	NS	--
Open Area	SS-09[1]	SS-9-0.0-0.5	0	0.5	ft	Mercury	0.13	mg/kg	U	23	--	350	--	0.1	--	NS	--

Table 5-5 Summary of Surface Soil Detections and Screening Level Exceedances for Mercury

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance

Notes
1. Surface soil samples SS-08 and SS-09 were collected from the offsite baseball field located south of the site.
ft = Feet/foot.
in = Inch.
mg/kg = Milligram per kilogram.
H = Analyzed outside of hold time.
J = Analyte was positively identified, but the associated numerical value is estimated.
K = Numerical value is biased high.
L = Numerical value is biased low.
U = The analyte was not detected at or above the reporting limit.

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	Background	BKG1-161013-SS-06-01	0	6	in	Arsenic	4.73	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	Background	BKG1-161013-SS-18-01	6	18	in	Arsenic	3.04	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-01	BSB-1-0.0-0.5	0	0.5	ft	Arsenic	4.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-01	BSB-1-0.5-2.0	0.5	2	ft	Arsenic	4.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-02	BSB-2-0.0-0.5	0	0.5	ft	Arsenic	4.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-02	BSB-2-0.5-2.0	0.5	2	ft	Arsenic	6.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-03	BSB-3-0.0-0.5	0	0.5	ft	Arsenic	3	mg/kg		0.68	Yes	3	--	18	--	6.305	--
Background	BSB-03	BSB-3-0.5-2.0-D	0.5	2	ft	Arsenic	2.7	mg/kg		0.68	Yes	3	--	18	--	6.305	--
Background	BSB-03	BSB-3-0.5-2.0	0.5	2	ft	Arsenic	2.7	mg/kg		0.68	Yes	3	--	18	--	6.305	--
Background	BSB-04	BSB-4-0.0-0.5	0	0.5	ft	Arsenic	3	mg/kg	J	0.68	Yes	3	--	18	--	6.305	--
Background	BSB-04	BSB-4-0.5-2.0	0.5	2	ft	Arsenic	3.7	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-05	BSB-5-0.0-0.5	0	0.5	ft	Arsenic	4.4	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-05	BSB-5-0.5-2.0	0.5	2	ft	Arsenic	4.8	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-06	BSB-6-0.0-0.5	0	0.5	ft	Arsenic	4.7	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-06	BSB-6-0.5-2.0	0.5	2	ft	Arsenic	4.7	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-07	BSB-7-0.0-0.5	0	0.5	ft	Arsenic	3.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-07	BSB-7-0.5-2.0	0.5	2	ft	Arsenic	3.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-08	BSB-8-0.0-0.5	0	0.5	ft	Arsenic	4.3	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	BSB-08	BSB-8-0.5-2.0	0.5	2	ft	Arsenic	3.7	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Background	SO-01	SO-01				Arsenic	5.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Background	SO-02	SO-02				Arsenic	4.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	A2	A2-160412-SS-03-01	0	3	in	Arsenic	9.24	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A2	A2-160412-SS-03-02	0	3	in	Arsenic	10.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A2	A2-160922-SS-18-01	12	18	in	Arsenic	7.23	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A3	A3-160412-SS-03-01	0	3	in	Arsenic	9.85	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A3	A3-160922-SS-18-01	12	18	in	Arsenic	8.02	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A5	A5-160922-SS-06-01	0	6	in	Arsenic	4.13	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	A5	A5-160922-SS-18-01	12	18	in	Arsenic	9.15	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A5	A5-160922-SS-18-02	12	18	in	Arsenic	7.25	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	A6	A6-160412-SS-03-01	0	3	in	Arsenic	7.68	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	A6	A6-160922-SS-18-01	12	18	in	Arsenic	4.99	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	ACMW-01	ACMW-1-0.0-0.5	0	0.5	ft	Arsenic	4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	ACMW-01	ACMW-1-0.5-2.0	0.5	2	ft	Arsenic	6.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	ACMW-02	ACMW-2-0.0-0.5	0	0.5	ft	Arsenic	4.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	ACMW-02	ACMW-2-0.5-2.0-D	0.5	2	ft	Arsenic	10.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	ACMW-02	ACMW-2-0.5-2.0	0.5	2	ft	Arsenic	7.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	ACMW-04	ACMW-4-0.0-0.5	0	0.5	ft	Arsenic	3.9	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Process Area	ACMW-04	ACMW-4-0.5-2.0	0.5	2	ft	Arsenic	3.8	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Process Area	B2	B2-160412-SS-03-01	0	3	in	Arsenic	9.08	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	B2	B2-160922-SS-18-01	12	18	in	Arsenic	8.63	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	B5	B5-160922-SS-06-01	0	6	in	Arsenic	7.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	B5	B5-160922-SS-18-01	12	18	in	Arsenic	5.47	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	B6	B6-160412-SS-03-01	0	3	in	Arsenic	5.81	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	B6	B6-160922-SS-18-01	12	18	in	Arsenic	7.14	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	C2	C2-160412-SS-03-01	0	3	in	Arsenic	14.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	C2	C2-160922-SS-12-01	6	12	in	Arsenic	9.11	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	C2	C2-160922-SS-18-01	12	18	in	Arsenic	7.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	C5	C5-160922-SS-06-01	0	6	in	Arsenic	7.83	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	C5	C5-160922-SS-18-01	12	18	in	Arsenic	9.8	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	C6	C6-160412-SS-03-01	0	3	in	Arsenic	4.24	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Process Area	C6	C6-160922-SS-18-01	12	18	in	Arsenic	6.11	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	C7	C7-160412-SS-03-01	0	3	in	Arsenic	5.88	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Process Area	C7	C7-160921-SS-18-01	12	18	in	Arsenic	7.25	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D2	D2-160412-SS-03-01	0	3	in	Arsenic	8.17	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D2	D2-160922-SS-12-01	6	12	in	Arsenic	7.48	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D2	D2-160922-SS-18-01	12	18	in	Arsenic	6.86	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D5	D5-160922-SS-06-01	0	6	in	Arsenic	11.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D5	LPW03-D5-SS-160413-01	0	3	in	Arsenic	4.34	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Process Area	D5	D5-160922-SS-18-01	12	18	in	Arsenic	8.06	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	D6	D6-160412-SS-03-01	0	3	in	Arsenic	8.19	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D6	D6-160922-SS-12-01	6	12	in	Arsenic	7.39	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D6	D6-160922-SS-18-01	12	18	in	Arsenic	5.78	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	D7	D7-160412-SS-03-01	0	3	in	Arsenic	7.87	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	D7	D7-160921-SS-18-01	12	18	in	Arsenic	6.32	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	DSB-08	DSB-8-0.0-0.5-D	0	0.5	ft	Arsenic	6.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	DSB-08	DSB-8-0.0-0.5	0	0.5	ft	Arsenic	7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	DSB-08	DSB-8-0.5-2.0	0.5	2	ft	Arsenic	7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E2	LPW04-E2-SS-160413-01	0	3	in	Arsenic	6.79	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E6	E6-160922-SS-06-01	0	6	in	Arsenic	6.12	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	E6	E6-160922-SS-06-02	0	6	in	Arsenic	5.25	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	E6	LPW01-E6-SS-160413-01	0	3	in	Arsenic	6.46	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E6	LPW01-E6-SS-160413-02	0	3	in	Arsenic	7.09	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E6	E6-160922-SS-12-01	6	12	in	Arsenic	8.89	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E6	E6-160922-SS-18-01	12	18	in	Arsenic	6.29	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	E7	E7-160412-SS-03-01	0	3	in	Arsenic	4.96	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Process Area	E7	E7-160922-SS-12-01	6	12	in	Arsenic	8.35	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E7	E7-160922-SS-18-01	12	18	in	Arsenic	6.99	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	E7	E7-160922-SS-18-02	12	18	in	Arsenic	7.13	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	F7	F7-160412-SS-03-01	0	3	in	Arsenic	8.79	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	F7	LPW02-F7-SS-160413-01	0	3	in	Arsenic	9.25	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	F7	F7-160922-SS-12-01	6	12	in	Arsenic	8.66	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	F7	F7-160922-SS-18-01	12	18	in	Arsenic	6.83	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	F7	F7-160922-SS-18-02	12	18	in	Arsenic	6.43	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	G3	LPW05-G3-SS-160413-01	0	3	in	Arsenic	8.29	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	G5	G5-160412-SS-03-01	0	3	in	Arsenic	6.81	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	G5	G5-160922-SS-12-01	6	12	in	Arsenic	7.41	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	G5	G5-160922-SS-18-01	12	18	in	Arsenic	7.55	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	G7	G7-160412-SS-03-01	0	3	in	Arsenic	6.18	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Process Area	G7	G7-160923-SS-12-01	6	12	in	Arsenic	7.76	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	G7	G7-160923-SS-18-01	12	18	in	Arsenic	6.92	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	JSB-02	JSB-2-0.0-0.5	0	0.5	ft	Arsenic	6.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	JSB-02	JSB-2-0.5-2.0-D	0.5	2	ft	Arsenic	6.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	JSB-02	JSB-2-0.5-2.0	0.5	2	ft	Arsenic	7.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	JSB-04	JSB-4-0.0-0.5	0	0.5	ft	Arsenic	5.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	JSB-04	JSB-4-0.5-2.0	0.5	2	ft	Arsenic	7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	JSB-06	JSB-6-0.0-0.5	0	0.5	ft	Arsenic	2.4	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Process Area	JSB-06	JSB-6-0.5-2.0	0.5	2	ft	Arsenic	2.5	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Process Area	JSB-09	JSB-9-0.0-0.5	0	0.5	ft	Arsenic	5.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	JSB-09	JSB-9-0.5-2.0	0.5	2	ft	Arsenic	7.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	JSB-10	JSB-10-0.0-0.5	0	0.5	ft	Arsenic	7.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	JSB-10	JSB-10-0.5-2.0	0.5	2	ft	Arsenic	6.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	JSB-11	JSB-11-0.0-0.5	0	0.5	ft	Arsenic	10.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	JSB-11	JSB-11-0.5-2.0	0.5	2	ft	Arsenic	11.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	MW-01	MW-1-0-0.5-D	0	0.5	ft	Arsenic	6.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	MW-01	MW-1-0.0-0.5	0	0.5	ft	Arsenic	7.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	MW-01	MW-1-0.5-2.0	0.5	2	ft	Arsenic	6.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	MW-09	MW-9-0.0-0.5	0	0.5	ft	Arsenic	4.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Process Area	MW-09	MW-9-0.5-2.0	0.5	2	ft	Arsenic	7.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	MW-10	MW-10-0.0-0.5	0	0.5	ft	Arsenic	3.7	mg/kg	J	0.68	Yes	3	Yes	18	--	6.305	--
Process Area	MW-10	MW-10-0.5-2.0	0.5	2	ft	Arsenic	2.7	mg/kg	J	0.68	Yes	3	--	18	--	6.305	--
Process Area	SO-03	SO-03				Arsenic	6.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
								--									
Process Area	SO-04	SO-04				Arsenic	6.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	SO-05	SO-05				Arsenic	7.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Process Area	SO-08	SO-08				Arsenic	6.8	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	A0	A0-160920-SS-06-01	0	6	in	Arsenic	6.14	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	A0	A0-160920-SS-18-01	12	18	in	Arsenic	6.85	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	A1	A1-160412-SS-03-01	0	3	in	Arsenic	9.37	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	A1	A1-160920-SS-18-01	12	18	in	Arsenic	5.2	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	A10	A10-160921-SS-06-01	0	6	in	Arsenic	7.85	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	A10	A10-160921-SS-18-01	12	18	in	Arsenic	6.4	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	A7	A7-160412-SS-03-01	0	3	in	Arsenic	6.28	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	A7	A7-160921-SS-18-01	12	18	in	Arsenic	6.74	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	A8	A8-160921-SS-06-01	0	6	in	Arsenic	3.62	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	A8	A8-160921-SS-18-01	12	18	in	Arsenic	4.19	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	A9	A9-160921-SS-06-01	0	6	in	Arsenic	5.36	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	A9	A9-160921-SS-18-01	12	18	in	Arsenic	6.43	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	A9	A9-160921-SS-18-02	12	18	in	Arsenic	6.19	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	ACMW-03	ACMW-3-0.0-0.5	0	0.5	ft	Arsenic	2.2	mg/kg	U	0.68	--	3	--	18	--	6.305	--
Open Area	ACMW-03	ACMW-3-0.5-2.0	0.5	2	ft	Arsenic	2.2	mg/kg	U	0.68	--	3	--	18	--	6.305	--
Open Area	B0	B0-160920-SS-06-01	0	6	in	Arsenic	5.97	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B0	B0-160920-SS-06-02	0	6	in	Arsenic	5.61	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B0	B0-160920-SS-18-01	12	18	in	Arsenic	4.83	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B1	B1-160412-SS-03-01	0	3	in	Arsenic	10.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	B1	B1-160920-SS-18-01	12	18	in	Arsenic	5.73	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B10	B10-160921-SS-06-01	0	6	in	Arsenic	4.37	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B10	B10-160921-SS-18-01	12	18	in	Arsenic	7.22	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	B7	B7-160412-SS-03-01	0	3	in	Arsenic	8.04	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	B7	B7-160921-SS-18-01	12	18	in	Arsenic	7.03	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	B8	B8-160921-SS-06-01	0	6	in	Arsenic	6.07	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B8	B8-160921-SS-18-01	12	18	in	Arsenic	6.16	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B9	B9-160921-SS-06-01	0	6	in	Arsenic	3.97	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	B9	B9-160921-SS-18-01	12	18	in	Arsenic	6.23	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C0	C0-160920-SS-06-01	0	6	in	Arsenic	5.3	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C0	C0-160920-SS-18-01	12	18	in	Arsenic	5.19	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C1	C1-160412-SS-03-01	0	3	in	Arsenic	9.27	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	C1	C1-160920-SS-18-01	12	18	in	Arsenic	5.45	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C10	C10-160921-SS-06-01	0	6	in	Arsenic	6.24	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C10	C10-160921-SS-18-01	12	18	in	Arsenic	5.49	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C8	C8-160921-SS-06-01	0	6	in	Arsenic	4.41	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C8	C8-160921-SS-18-01	12	18	in	Arsenic	7.29	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	C9	C9-160921-SS-06-01	0	6	in	Arsenic	4.3	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	C9	C9-160921-SS-18-01	12	18	in	Arsenic	2.37	mg/kg	JL	0.68	Yes	3	--	18	--	6.305	--
Open Area	D0	D0-160920-SS-06-01	0	6	in	Arsenic	5.78	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	D0	D0-160920-SS-06-02	0	6	in	Arsenic	5.48	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	D0	D0-160920-SS-18-01	12	18	in	Arsenic	4.94	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	D1	D1-160412-SS-03-01	0	3	in	Arsenic	9.23	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	D1	D1-160920-SS-18-01	12	18	in	Arsenic	4.41	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	D10	D10-160921-SS-06-01	0	6	in	Arsenic	4.19	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	D10	D10-160921-SS-06-02	0	6	in	Arsenic	4.89	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	D10	D10-160921-SS-18-01	12	18	in	Arsenic	4.86	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-01	DSB-1-0.0-0.5	0	0.5	ft	Arsenic	5.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-01	DSB-1-0.5-2.0	0.5	2	ft	Arsenic	5.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-02	DSB-2-0.0-0.5	0	0.5	ft	Arsenic	6.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-02	DSB-2-0.5-2.0	0.5	2	ft	Arsenic	5.8	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-03	DSB-3-0.0-0.5	0	0.5	ft	Arsenic	6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-03	DSB-3-0.5-2.0	0.5	2	ft	Arsenic	7.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-04	DSB-4-0.0-0.5	0	0.5	ft	Arsenic	8.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-04	DSB-4-0.5-2.0	0.5	2	ft	Arsenic	6.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-05	DSB-5-0.0-0.5	0	0.5	ft	Arsenic	5.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-05	DSB-5-0.5-2.0-D	0.5	2	ft	Arsenic	6.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-05	DSB-5-0.5-2.0	0.5	2	ft	Arsenic	6.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-06	DSB-6-0.0-0.5	0	0.5	ft	Arsenic	7.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-06	DSB-6-0.5-2.0	0.5	2	ft	Arsenic	7.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-07	DSB-7-0.0-0.5	0	0.5	ft	Arsenic	6.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	DSB-07	DSB-7-0.5-2.0	0.5	2	ft	Arsenic	6.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-09	DSB-9-0.0-0.5	0	0.5	ft	Arsenic	7.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	DSB-09	DSB-9-0.5-2.0	0.5	2	ft	Arsenic	6.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	E0	E0-160920-SS-06-01	0	6	in	Arsenic	6.23	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	E0	E0-160920-SS-18-01	12	18	in	Arsenic	5.38	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	E1	E1-160412-SS-03-01	0	3	in	Arsenic	9.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	E1	E1-160920-SS-18-01	12	18	in	Arsenic	5.45	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	E10	E10-160923-SS-06-01	0	6	in	Arsenic	6.8	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	E10	E10-160923-SS-18-01	12	18	in	Arsenic	7.38	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	E9	E9-160923-SS-06-01	0	6	in	Arsenic	6.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	E9	E9-160923-SS-18-01	12	18	in	Arsenic	7.13	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	F0	F0-160920-SS-06-01	0	6	in	Arsenic	6.62	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	F0	G0-160920-SS-06-01	0	6	in	Arsenic	6.32	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	F0	F0-160920-SS-18-01	12	18	in	Arsenic	6.1	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	F0	F0-160920-SS-18-02	12	18	in	Arsenic	5.54	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	F1	F1-160412-SS-03-01	0	3	in	Arsenic	8.59	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	F1	F1-160920-SS-12-01	6	12	in	Arsenic	5.85	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	F1	F1-160920-SS-18-01	12	18	in	Arsenic	4.97	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	F9	F9-160923-SS-06-01	0	6	in	Arsenic	5.55	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	F9	F9-160923-SS-06-02	0	6	in	Arsenic	5.41	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	F9	F9-160923-SS-18-01	12	18	in	Arsenic	4.96	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	G0	G0-160920-SS-18-01	12	18	in	Arsenic	6.19	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	G1	G1-160412-SS-03-01	0	3	in	Arsenic	10.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	G1	G1-160920-SS-18-01	12	18	in	Arsenic	5.59	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	G6	G6-160923-SS-18-01	12	18	in	Arsenic	7.29	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H0	H0-160920-SS-06-01	0	6	in	Arsenic	4.7	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	H0	H0-160920-SS-18-01	12	18	in	Arsenic	7.2	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H1	H1-160412-SS-03-01	0	3	in	Arsenic	9.96	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H1	H1-160920-SS-18-01	12	18	in	Arsenic	5.48	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	H2	H2-160412-SS-03-01	0	3	in	Arsenic	8.77	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H2	H2-160920-SS-18-01	12	18	in	Arsenic	7.81	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H3	H3-160412-SS-03-01	0	3	in	Arsenic	8.77	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H3	H3-160920-SS-18-01	12	18	in	Arsenic	7.09	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H4	H4-160412-SS-03-01	0	3	in	Arsenic	7.73	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H4	H4-160921-SS-18-01	12	18	in	Arsenic	7.93	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	H5	H5-160412-SS-03-01	0	3	in	Arsenic	8.75	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	H5	H5-160921-SS-18-01	12	18	in	Arsenic	8.16	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I0	I0-160920-SS-06-01	0	6	in	Arsenic	6.38	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I0	I0-160920-SS-18-01	12	18	in	Arsenic	6.8	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I1	I1-160920-SS-06-01	0	6	in	Arsenic	5.42	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	I1	I1-160920-SS-06-02	0	6	in	Arsenic	5.58	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	I1	I1-160920-SS-18-01	12	18	in	Arsenic	4.75	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	I10	I10-160921-SS-06-01	0	6	in	Arsenic	6.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I10	I10-160921-SS-12-01	6	12	in	Arsenic	8.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I10	I10-160921-SS-18-01	12	18	in	Arsenic	6.51	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I10	I10-160921-SS-18-02	12	18	in	Arsenic	6.25	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	I2	I2-160921-SS-06-01	0	6	in	Arsenic	6.44	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I2	I2-160921-SS-18-01	12	18	in	Arsenic	6.86	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I3	I3-160921-SS-06-01	0	6	in	Arsenic	6.97	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I3	I3-160921-SS-18-01	12	18	in	Arsenic	7.42	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I4	I4-160921-SS-06-01	0	6	in	Arsenic	6.91	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I4	I4-160921-SS-18-01	12	18	in	Arsenic	6.85	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I5	I5-160921-SS-06-01	0	6	in	Arsenic	6.86	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I5	I5-160921-SS-06-02	0	6	in	Arsenic	7.01	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I5	I5-160921-SS-18-01	12	18	in	Arsenic	7.76	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I6	I6-160921-SS-06-01	0	6	in	Arsenic	6.89	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	I6	I6-160921-SS-18-01	12	18	in	Arsenic	6.67	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J0	J0-160920-SS-06-01	0	6	in	Arsenic	6.53	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J0	J0-160920-SS-18-01	12	18	in	Arsenic	6.6	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J1	J1-160920-SS-06-01	0	6	in	Arsenic	4.44	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J1	J1-160920-SS-18-01	12	18	in	Arsenic	5.69	mg/kg	JL	0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J10	J10-160921-SS-06-01	0	6	in	Arsenic	4.48	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J10	J10-160921-SS-18-01	12	18	in	Arsenic	6.09	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J10	J10-160921-SS-18-02	12	18	in	Arsenic	6.26	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J2	J2-160921-SS-06-01	0	6	in	Arsenic	7.41	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J2	J2-160921-SS-18-01	12	18	in	Arsenic	7.28	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	J3	J3-160921-SS-06-01	0	6	in	Arsenic	7.33	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J3	J3-160921-SS-18-01	12	18	in	Arsenic	8.84	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J4	J4-160921-SS-06-01	0	6	in	Arsenic	6.74	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J4	J4-160921-SS-18-01	12	18	in	Arsenic	8.02	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J5	J5-160921-SS-06-01	0	6	in	Arsenic	6.78	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J5	J5-160921-SS-18-01	12	18	in	Arsenic	7.02	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J6	J6-160921-SS-06-01	0	6	in	Arsenic	5.13	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J6	J6-160921-SS-18-01	12	18	in	Arsenic	6.95	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	J8	J8-160921-SS-06-01	0	6	in	Arsenic	5.49	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J8	J8-160921-SS-18-01	12	18	in	Arsenic	5.89	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J9	J9-160921-SS-06-01	0	6	in	Arsenic	5.29	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	J9	J9-160921-SS-18-01	12	18	in	Arsenic	5.11	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	JSB-01	JSB-1-0.0-0.5	0	0.5	ft	Arsenic	6.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	JSB-01	JSB-1-0.5-2.0	0.5	2	ft	Arsenic	5.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	JSB-03	JSB-3-0.0-0.5	0	0.5	ft	Arsenic	6.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	JSB-03	JSB-3-0.5-2.0-D	0.5	2	ft	Arsenic	5.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	JSB-03	JSB-3-0.5-2.0	0.5	2	ft	Arsenic	7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	JSB-05	JSB-5-0.0-0.5	0	0.5	ft	Arsenic	2.3	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Open Area	JSB-05	JSB-5-0.5-2.0-D	0.5	2	ft	Arsenic	2.3	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Open Area	JSB-05	JSB-5-0.5-2.0	0.5	2	ft	Arsenic	2.2	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Open Area	JSB-07	JSB-7-0.0-0.5	0	0.5	ft	Arsenic	5.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	JSB-07	JSB-7-0.5-2.0	0.5	2	ft	Arsenic	6.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	JSB-08	JSB-8-0.0-0.5	0	0.5	ft	Arsenic	6.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	JSB-08	JSB-8-0.5-2.0	0.5	2	ft	Arsenic	7.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	MW-02	MW-2-0.0-0.5	0	0.5	ft	Arsenic	6.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	MW-02	MW-2-0.5-2.0	0.5	2	ft	Arsenic	6.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	MW-03	MW-3-0.0-0.5	0	0.5	ft	Arsenic	6.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	MW-03	MW-3-0.5-2.0	0.5	2	ft	Arsenic	6.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	MW-04	MW-4-0.0-0.5	0	0.5	ft	Arsenic	4.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-04	MW-4-0.5-2.0	0.5	2	ft	Arsenic	6.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	MW-05	MW-5-0.0-0.5	0	0.5	ft	Arsenic	6.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-05	MW-5-0.5-2.0-D	0.5	2	ft	Arsenic	5.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-05	MW-5-0.5-2.0	0.5	2	ft	Arsenic	5.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-06	MW-6-0.0-0.5	0	0.5	ft	Arsenic	6.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-06	MW-6-0.5-2.0	0.5	2	ft	Arsenic	5.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-07	MW-7-0.0-0.5	0	0.5	ft	Arsenic	4.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-07	MW-7-0.5-2.0	0.5	2	ft	Arsenic	6.2	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	MW-08	MW-8-0.0-0.5	0	0.5	ft	Arsenic	2.4	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Open Area	MW-08	MW-8-0.5-2.0	0.5	2	ft	Arsenic	2.3	mg/kg	UJ	0.68	--	3	--	18	--	6.305	--
Open Area	SO-06	SO-06				Arsenic	5.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SO-07	SO-07				Arsenic	5.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-01	SS-1-0.0-0.5	0	0.5	ft	Arsenic	4.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-01	SS-1-0.5-2.0	0.5	2	ft	Arsenic	4.5	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-02	SS-2-0.0-0.5	0	0.5	ft	Arsenic	5.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-02	SS-2-0.5-2.0	0.5	2	ft	Arsenic	4.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-03	SS-3-0.0-0.5	0	0.5	ft	Arsenic	5.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-03	SS-3-0.5-2.0	0.5	2	ft	Arsenic	5.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-04	SS-4-0.0-0.5	0	0.5	ft	Arsenic	5.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-04	SS-4-0.5-2.0	0.5	2	ft	Arsenic	6.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-05	SS-5-0.0-0.5	0	0.5	ft	Arsenic	5.7	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-05	SS-5-0.5-2.0	0.5	2	ft	Arsenic	5.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-06	SS-6-0.0-0.5	0	0.5	ft	Arsenic	6.8	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	SS-06	SS-6-0.5-2.0	0.5	2	ft	Arsenic	7.1	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	SS-07	SS-7-0.0-0.5-D	0	0.5	ft	Arsenic	5.6	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-07	SS-7-0.0-0.5	0	0.5	ft	Arsenic	4.9	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-07	SS-7-0.5-2.0	0.5	2	ft	Arsenic	5.8	mg/kg		0.68	Yes	3	Yes	18	--	6.305	--
Open Area	SS-08[1]	SS-8-0.0-0.5-D	0	0.5	ft	Arsenic	18.5	mg/kg		0.68	Yes	3	Yes	18	Yes	6.305	Yes
Open Area	SS-08[1]	SS-8-0.0-0.5	0	0.5	ft	Arsenic	19.1	mg/kg		0.68	Yes	3	Yes	18	Yes	6.305	Yes

Table 5-6 Summary of Surface Soil Detections and Screening Level Exceedances for Arsenic

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	SS-09[1]	SS-9-0.0-0.5-D	0	0.5	ft	Arsenic	14.4	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes
Open Area	SS-09[1]	SS-9-0.0-0.5	0	0.5	ft	Arsenic	12.3	mg/kg		0.68	Yes	3	Yes	18	--	6.305	Yes

Notes
1. Surface soil samples SS-08 and SS-09 were collected from the offsite baseball field located south of the site.
ft = Feet/foot.
in = Inch.
mg/kg = Milligram per kilogram.
J = Analyte was positively identified, but the associated numerical value is estimated.
L = Numerical value is biased low.
U = The analyte was not detected at or above the reporting limit.

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	Background	BKG1-161013-SS-06-01	0	6	in	Chromium	9.18	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	Background	BKG1-161013-SS-18-01	6	18	in	Chromium	5.44	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-01	BSB-1-0.0-0.5	0	0.5	ft	Chromium	6.3	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-01	BSB-1-0.5-2.0	0.5	2	ft	Chromium	5.1	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-02	BSB-2-0.0-0.5	0	0.5	ft	Chromium	7.4	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-02	BSB-2-0.5-2.0	0.5	2	ft	Chromium	5.2	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-03	BSB-3-0.0-0.5	0	0.5	ft	Chromium	5	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-03	BSB-3-0.5-2.0-D	0.5	2	ft	Chromium	4.3	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-03	BSB-3-0.5-2.0	0.5	2	ft	Chromium	4.2	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-04	BSB-4-0.0-0.5	0	0.5	ft	Chromium	6	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-04	BSB-4-0.5-2.0	0.5	2	ft	Chromium	5.1	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-05	BSB-5-0.0-0.5	0	0.5	ft	Chromium	4.6	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-05	BSB-5-0.5-2.0	0.5	2	ft	Chromium	5	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-06	BSB-6-0.0-0.5	0	0.5	ft	Chromium	7.6	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-06	BSB-6-0.5-2.0	0.5	2	ft	Chromium	5.6	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-07	BSB-7-0.0-0.5	0	0.5	ft	Chromium	8.4	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-07	BSB-7-0.5-2.0	0.5	2	ft	Chromium	6.6	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-08	BSB-8-0.0-0.5	0	0.5	ft	Chromium	6.1	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	BSB-08	BSB-8-0.5-2.0	0.5	2	ft	Chromium	4.8	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Background	SO-01	SO-01				Chromium	10.7	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Background	SO-02	SO-02				Chromium	7.9	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Process Area	A2	A2-160412-SS-03-01	0	3	in	Chromium	36.4	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	A2	A2-160412-SS-03-02	0	3	in	Chromium	37.5	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	A2	A2-160922-SS-18-01	12	18	in	Chromium	15.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	A3	A3-160412-SS-03-01	0	3	in	Chromium	60.5	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	A3	A3-160922-SS-18-01	12	18	in	Chromium	18.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	A5	A5-160922-SS-06-01	0	6	in	Chromium	50.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	A5	A5-160922-SS-18-01	12	18	in	Chromium	20.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	A5	A5-160922-SS-18-02	12	18	in	Chromium	16.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	A6	A6-160412-SS-03-01	0	3	in	Chromium	102	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	A6	A6-160922-SS-18-01	12	18	in	Chromium	16	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	ACMW-01	ACMW-1-0.0-0.5	0	0.5	ft	Chromium	148	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	ACMW-01	ACMW-1-0.5-2.0	0.5	2	ft	Chromium	69	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	ACMW-02	ACMW-2-0.0-0.5	0	0.5	ft	Chromium	7030	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	ACMW-02	ACMW-2-0.5-2.0-D	0.5	2	ft	Chromium	1240	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	ACMW-02	ACMW-2-0.5-2.0	0.5	2	ft	Chromium	563	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	ACMW-04	ACMW-4-0.0-0.5	0	0.5	ft	Chromium	18	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	ACMW-04	ACMW-4-0.5-2.0	0.5	2	ft	Chromium	11.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	B2	B2-160412-SS-03-01	0	3	in	Chromium	530	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	B2	B2-160922-SS-18-01	12	18	in	Chromium	30.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	B5	B5-160922-SS-06-01	0	6	in	Chromium	31.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	B5	B5-160922-SS-18-01	12	18	in	Chromium	15.8	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	B6	B6-160412-SS-03-01	0	3	in	Chromium	94.5	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	B6	B6-160922-SS-18-01	12	18	in	Chromium	23.2	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C2	C2-160412-SS-03-01	0	3	in	Chromium	11400	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C2	C2-160922-SS-12-01	6	12	in	Chromium	139	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C2	C2-160922-SS-18-01	12	18	in	Chromium	137	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C5	C5-160922-SS-06-01	0	6	in	Chromium	32.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C5	C5-160922-SS-18-01	12	18	in	Chromium	24.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C6	C6-160412-SS-03-01	0	3	in	Chromium	228	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C6	C6-160922-SS-18-01	12	18	in	Chromium	23.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C7	C7-160412-SS-03-01	0	3	in	Chromium	399	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	C7	C7-160921-SS-18-01	12	18	in	Chromium	20.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Process Area	D2	D2-160412-SS-03-01	0	3	in	Chromium	1970	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D2	D2-160922-SS-12-01	6	12	in	Chromium	484	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D2	D2-160922-SS-18-01	12	18	in	Chromium	279	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D5	D5-160922-SS-06-01	0	6	in	Chromium	83.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D5	LPW03-D5-SS-160413-01	0	3	in	Chromium	1210	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D5	D5-160922-SS-18-01	12	18	in	Chromium	43.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	D6	D6-160412-SS-03-01	0	3	in	Chromium	1260	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D6	D6-160922-SS-12-01	6	12	in	Chromium	93.9	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D6	D6-160922-SS-18-01	12	18	in	Chromium	52.8	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D7	D7-160412-SS-03-01	0	3	in	Chromium	2850	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	D7	D7-160921-SS-18-01	12	18	in	Chromium	28.9	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	DSB-08	DSB-8-0.0-0.5-D	0	0.5	ft	Chromium	728	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	DSB-08	DSB-8-0.0-0.5	0	0.5	ft	Chromium	928	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	DSB-08	DSB-8-0.5-2.0	0.5	2	ft	Chromium	296	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E2	LPW04-E2-SS-160413-01	0	3	in	Chromium	165	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E6	E6-160922-SS-06-01	0	6	in	Chromium	3890	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E6	E6-160922-SS-06-02	0	6	in	Chromium	3150	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E6	LPW01-E6-SS-160413-01	0	3	in	Chromium	9530	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E6	LPW01-E6-SS-160413-02	0	3	in	Chromium	13000	mg/kg	JK	12,000	Yes	180,000	--	23	Yes	10.41	Yes
Process Area	E6	E6-160922-SS-12-01	6	12	in	Chromium	252	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E6	E6-160922-SS-18-01	12	18	in	Chromium	314	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E7	E7-160412-SS-03-01	0	3	in	Chromium	3190	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E7	E7-160922-SS-12-01	6	12	in	Chromium	256	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E7	E7-160922-SS-18-01	12	18	in	Chromium	1020	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	E7	E7-160922-SS-18-02	12	18	in	Chromium	898	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	F7	F7-160412-SS-03-01	0	3	in	Chromium	4660	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	F7	LPW02-F7-SS-160413-01	0	3	in	Chromium	3670	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	F7	F7-160922-SS-12-01	6	12	in	Chromium	847	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	F7	F7-160922-SS-18-01	12	18	in	Chromium	451	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	F7	F7-160922-SS-18-02	12	18	in	Chromium	286	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G3	LPW05-G3-SS-160413-01	0	3	in	Chromium	8330	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G5	G5-160412-SS-03-01	0	3	in	Chromium	4690	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G5	G5-160922-SS-12-01	6	12	in	Chromium	3560	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G5	G5-160922-SS-18-01	12	18	in	Chromium	565	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G7	G7-160412-SS-03-01	0	3	in	Chromium	4080	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G7	G7-160923-SS-12-01	6	12	in	Chromium	539	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	G7	G7-160923-SS-18-01	12	18	in	Chromium	332	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-02	JSB-2-0.0-0.5	0	0.5	ft	Chromium	3130	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-02	JSB-2-0.5-2.0-D	0.5	2	ft	Chromium	2150	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	JSB-02	JSB-2-0.5-2.0	0.5	2	ft	Chromium	2850	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-04	JSB-4-0.0-0.5	0	0.5	ft	Chromium	1180	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-04	JSB-4-0.5-2.0	0.5	2	ft	Chromium	399	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-06	JSB-6-0.0-0.5	0	0.5	ft	Chromium	142	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-06	JSB-6-0.5-2.0	0.5	2	ft	Chromium	25.5	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-09	JSB-9-0.0-0.5	0	0.5	ft	Chromium	19.4	mg/kg		12,000	--	180,000	NA	23	--	10.41	Yes
Process Area	JSB-09	JSB-9-0.5-2.0	0.5	2	ft	Chromium	20.9	mg/kg		12,000	--	180,000	NA	23	--	10.41	Yes
Process Area	JSB-10	JSB-10-0.0-0.5	0	0.5	ft	Chromium	53.6	mg/kg		12,000	--	180,000	NA	23	Yes	10.41	Yes
Process Area	JSB-10	JSB-10-0.5-2.0	0.5	2	ft	Chromium	18.7	mg/kg		12,000	--	180,000	NA	23	--	10.41	Yes
Process Area	JSB-11	JSB-11-0.0-0.5	0	0.5	ft	Chromium	1730	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	JSB-11	JSB-11-0.5-2.0	0.5	2	ft	Chromium	39.8	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-01	MW-1-0-0.5-D	0	0.5	ft	Chromium	6320	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-01	MW-1-0.0-0.5	0	0.5	ft	Chromium	3970	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-01	MW-1-0.5-2.0	0.5	2	ft	Chromium	1040	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-09	MW-9-0.0-0.5	0	0.5	ft	Chromium	6180	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-09	MW-9-0.5-2.0	0.5	2	ft	Chromium	2810	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-10	MW-10-0.0-0.5	0	0.5	ft	Chromium	383	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	MW-10	MW-10-0.5-2.0	0.5	2	ft	Chromium	186	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	SO-03	SO-03				Chromium	4180	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	SO-04	SO-04				Chromium	2100	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	SO-05	SO-05				Chromium	3970	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Process Area	SO-08	SO-08				Chromium	4510	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	A0	A0-160920-SS-06-01	0	6	in	Chromium	20.2	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	A0	A0-160920-SS-18-01	12	18	in	Chromium	9.56	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	A1	A1-160412-SS-03-01	0	3	in	Chromium	26.5	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	A1	A1-160920-SS-18-01	12	18	in	Chromium	8.87	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	--
Open Area	A10	A10-160921-SS-06-01	0	6	in	Chromium	39.2	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	A10	A10-160921-SS-18-01	12	18	in	Chromium	16.4	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	A7	A7-160412-SS-03-01	0	3	in	Chromium	111	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	A7	A7-160921-SS-18-01	12	18	in	Chromium	20.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	A8	A8-160921-SS-06-01	0	6	in	Chromium	20.2	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	A8	A8-160921-SS-18-01	12	18	in	Chromium	110	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	A9	A9-160921-SS-06-01	0	6	in	Chromium	30.2	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	A9	A9-160921-SS-18-01	12	18	in	Chromium	17.6	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	A9	A9-160921-SS-18-02	12	18	in	Chromium	20.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	ACMW-03	ACMW-3-0.0-0.5	0	0.5	ft	Chromium	15.2	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	ACMW-03	ACMW-3-0.5-2.0	0.5	2	ft	Chromium	5.5	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	B0	B0-160920-SS-06-01	0	6	in	Chromium	23.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B0	B0-160920-SS-06-02	0	6	in	Chromium	22.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	B0	B0-160920-SS-18-01	12	18	in	Chromium	10.4	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	B1	B1-160412-SS-03-01	0	3	in	Chromium	37.8	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B1	B1-160920-SS-18-01	12	18	in	Chromium	13.3	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	B10	B10-160921-SS-06-01	0	6	in	Chromium	30.9	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B10	B10-160921-SS-18-01	12	18	in	Chromium	17.6	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	B7	B7-160412-SS-03-01	0	3	in	Chromium	239	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B7	B7-160921-SS-18-01	12	18	in	Chromium	18.2	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	B8	B8-160921-SS-06-01	0	6	in	Chromium	143	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B8	B8-160921-SS-18-01	12	18	in	Chromium	223	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B9	B9-160921-SS-06-01	0	6	in	Chromium	25.6	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	B9	B9-160921-SS-18-01	12	18	in	Chromium	11.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	C0	C0-160920-SS-06-01	0	6	in	Chromium	32.9	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	C0	C0-160920-SS-18-01	12	18	in	Chromium	16.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	C1	C1-160412-SS-03-01	0	3	in	Chromium	97.6	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	C1	C1-160920-SS-18-01	12	18	in	Chromium	19.3	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	C10	C10-160921-SS-06-01	0	6	in	Chromium	112	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	C10	C10-160921-SS-18-01	12	18	in	Chromium	16.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	C8	C8-160921-SS-06-01	0	6	in	Chromium	46.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	C8	C8-160921-SS-18-01	12	18	in	Chromium	26.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	C9	C9-160921-SS-06-01	0	6	in	Chromium	32.4	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	C9	C9-160921-SS-18-01	12	18	in	Chromium	4.25	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	D0	D0-160920-SS-06-01	0	6	in	Chromium	45.8	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	D0	D0-160920-SS-06-02	0	6	in	Chromium	46.9	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	D0	D0-160920-SS-18-01	12	18	in	Chromium	21.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	D1	D1-160412-SS-03-01	0	3	in	Chromium	151	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	D1	D1-160920-SS-18-01	12	18	in	Chromium	21.3	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	D10	D10-160921-SS-06-01	0	6	in	Chromium	43.6	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	D10	D10-160921-SS-06-02	0	6	in	Chromium	42.2	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	D10	D10-160921-SS-18-01	12	18	in	Chromium	8.56	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	DSB-01	DSB-1-0.0-0.5	0	0.5	ft	Chromium	19.6	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-01	DSB-1-0.5-2.0	0.5	2	ft	Chromium	18.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-02	DSB-2-0.0-0.5	0	0.5	ft	Chromium	198	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-02	DSB-2-0.5-2.0	0.5	2	ft	Chromium	57.9	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-03	DSB-3-0.0-0.5	0	0.5	ft	Chromium	736	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-03	DSB-3-0.5-2.0	0.5	2	ft	Chromium	2440	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-04	DSB-4-0.0-0.5	0	0.5	ft	Chromium	11.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-04	DSB-4-0.5-2.0	0.5	2	ft	Chromium	24.8	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-05	DSB-5-0.0-0.5	0	0.5	ft	Chromium	399	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-05	DSB-5-0.5-2.0-D	0.5	2	ft	Chromium	22.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-05	DSB-5-0.5-2.0	0.5	2	ft	Chromium	12.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-06	DSB-6-0.0-0.5	0	0.5	ft	Chromium	17.4	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-06	DSB-6-0.5-2.0	0.5	2	ft	Chromium	12.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	DSB-07	DSB-7-0.0-0.5	0	0.5	ft	Chromium	147	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-07	DSB-7-0.5-2.0	0.5	2	ft	Chromium	28.8	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-09	DSB-9-0.0-0.5	0	0.5	ft	Chromium	129	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	DSB-09	DSB-9-0.5-2.0	0.5	2	ft	Chromium	75.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	E0	E0-160920-SS-06-01	0	6	in	Chromium	46.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	E0	E0-160920-SS-18-01	12	18	in	Chromium	17.2	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	E1	E1-160412-SS-03-01	0	3	in	Chromium	1510	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	E1	E1-160920-SS-18-01	12	18	in	Chromium	36.9	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	E10	E10-160923-SS-06-01	0	6	in	Chromium	79.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	E10	E10-160923-SS-18-01	12	18	in	Chromium	14.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	E9	E9-160923-SS-06-01	0	6	in	Chromium	75.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	E9	E9-160923-SS-18-01	12	18	in	Chromium	17.4	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	F0	F0-160920-SS-06-01	0	6	in	Chromium	28.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F0	G0-160920-SS-06-01	0	6	in	Chromium	40.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F0	F0-160920-SS-18-01	12	18	in	Chromium	16.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	F0	F0-160920-SS-18-02	12	18	in	Chromium	15.4	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	F1	F1-160412-SS-03-01	0	3	in	Chromium	2050	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F1	F1-160920-SS-12-01	6	12	in	Chromium	26.5	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F1	F1-160920-SS-18-01	12	18	in	Chromium	28.3	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F9	F9-160923-SS-06-01	0	6	in	Chromium	196	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F9	F9-160923-SS-06-02	0	6	in	Chromium	116	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	F9	F9-160923-SS-18-01	12	18	in	Chromium	43.6	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	G0	G0-160920-SS-18-01	12	18	in	Chromium	14.7	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	G1	G1-160412-SS-03-01	0	3	in	Chromium	112	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	G1	G1-160920-SS-18-01	12	18	in	Chromium	17.6	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	G6	G6-160923-SS-18-01	12	18	in	Chromium	371	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H0	H0-160920-SS-06-01	0	6	in	Chromium	26.5	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H0	H0-160920-SS-18-01	12	18	in	Chromium	17.8	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	H1	H1-160412-SS-03-01	0	3	in	Chromium	80.6	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H1	H1-160920-SS-18-01	12	18	in	Chromium	16.3	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	H2	H2-160412-SS-03-01	0	3	in	Chromium	293	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H2	H2-160920-SS-18-01	12	18	in	Chromium	88.2	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H3	H3-160412-SS-03-01	0	3	in	Chromium	631	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H3	H3-160920-SS-18-01	12	18	in	Chromium	133	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H4	H4-160412-SS-03-01	0	3	in	Chromium	1780	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H4	H4-160921-SS-18-01	12	18	in	Chromium	301	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	H5	H5-160412-SS-03-01	0	3	in	Chromium	1290	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	H5	H5-160921-SS-18-01	12	18	in	Chromium	35.7	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I0	I0-160920-SS-06-01	0	6	in	Chromium	33.5	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I0	I0-160920-SS-18-01	12	18	in	Chromium	15.6	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	I1	I1-160920-SS-06-01	0	6	in	Chromium	36.1	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I1	I1-160920-SS-06-02	0	6	in	Chromium	33.3	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I1	I1-160920-SS-18-01	12	18	in	Chromium	10	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	--
Open Area	I10	I10-160921-SS-06-01	0	6	in	Chromium	5170	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I10	I10-160921-SS-12-01	6	12	in	Chromium	552	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I10	I10-160921-SS-18-01	12	18	in	Chromium	57	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I10	I10-160921-SS-18-02	12	18	in	Chromium	261	mg/kg	JK	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I2	I2-160921-SS-06-01	0	6	in	Chromium	39.7	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I2	I2-160921-SS-18-01	12	18	in	Chromium	14.9	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	I3	I3-160921-SS-06-01	0	6	in	Chromium	44.8	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I3	I3-160921-SS-18-01	12	18	in	Chromium	14.4	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	I4	I4-160921-SS-06-01	0	6	in	Chromium	40.2	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I4	I4-160921-SS-18-01	12	18	in	Chromium	16.5	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	I5	I5-160921-SS-06-01	0	6	in	Chromium	40.1	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I5	I5-160921-SS-06-02	0	6	in	Chromium	45.4	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I5	I5-160921-SS-18-01	12	18	in	Chromium	13.4	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	I6	I6-160921-SS-06-01	0	6	in	Chromium	54.4	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	I6	I6-160921-SS-18-01	12	18	in	Chromium	13.4	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J0	J0-160920-SS-06-01	0	6	in	Chromium	24.6	mg/kg	JL	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J0	J0-160920-SS-18-01	12	18	in	Chromium	12.3	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J1	J1-160920-SS-06-01	0	6	in	Chromium	21.3	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J1	J1-160920-SS-18-01	12	18	in	Chromium	10.7	mg/kg	JL	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J10	J10-160921-SS-06-01	0	6	in	Chromium	183	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J10	J10-160921-SS-18-01	12	18	in	Chromium	18.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J10	J10-160921-SS-18-02	12	18	in	Chromium	13.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J2	J2-160921-SS-06-01	0	6	in	Chromium	29.4	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J2	J2-160921-SS-18-01	12	18	in	Chromium	12.9	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	J3	J3-160921-SS-06-01	0	6	in	Chromium	28.1	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J3	J3-160921-SS-18-01	12	18	in	Chromium	14.1	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J4	J4-160921-SS-06-01	0	6	in	Chromium	25.6	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J4	J4-160921-SS-18-01	12	18	in	Chromium	13	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J5	J5-160921-SS-06-01	0	6	in	Chromium	26.2	mg/kg	JH	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J5	J5-160921-SS-18-01	12	18	in	Chromium	15.3	mg/kg	JH	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J6	J6-160921-SS-06-01	0	6	in	Chromium	35.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J6	J6-160921-SS-18-01	12	18	in	Chromium	10.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J8	J8-160921-SS-06-01	0	6	in	Chromium	54.8	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J8	J8-160921-SS-18-01	12	18	in	Chromium	11.7	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	J9	J9-160921-SS-06-01	0	6	in	Chromium	44.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	J9	J9-160921-SS-18-01	12	18	in	Chromium	14.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-01	JSB-1-0.0-0.5	0	0.5	ft	Chromium	22	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-01	JSB-1-0.5-2.0	0.5	2	ft	Chromium	10.2	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	JSB-03	JSB-3-0.0-0.5	0	0.5	ft	Chromium	50.3	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	JSB-03	JSB-3-0.5-2.0-D	0.5	2	ft	Chromium	13.6	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-03	JSB-3-0.5-2.0	0.5	2	ft	Chromium	12.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-05	JSB-5-0.0-0.5	0	0.5	ft	Chromium	78.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	JSB-05	JSB-5-0.5-2.0-D	0.5	2	ft	Chromium	12.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-05	JSB-5-0.5-2.0	0.5	2	ft	Chromium	11.2	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-07	JSB-7-0.0-0.5	0	0.5	ft	Chromium	77.6	mg/kg	J	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	JSB-07	JSB-7-0.5-2.0	0.5	2	ft	Chromium	12.3	mg/kg	J	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	JSB-08	JSB-8-0.0-0.5	0	0.5	ft	Chromium	99.8	mg/kg	J	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	JSB-08	JSB-8-0.5-2.0	0.5	2	ft	Chromium	50.3	mg/kg	J	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	MW-02	MW-2-0.0-0.5	0	0.5	ft	Chromium	21.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-02	MW-2-0.5-2.0	0.5	2	ft	Chromium	16.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-03	MW-3-0.0-0.5	0	0.5	ft	Chromium	40.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	MW-03	MW-3-0.5-2.0	0.5	2	ft	Chromium	13.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-04	MW-4-0.0-0.5	0	0.5	ft	Chromium	180	mg/kg	J	12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	MW-04	MW-4-0.5-2.0	0.5	2	ft	Chromium	16	mg/kg	J	12,000	--	180,000	--	23	--	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	MW-05	MW-5-0.0-0.5	0	0.5	ft	Chromium	12.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-05	MW-5-0.5-2.0-D	0.5	2	ft	Chromium	11.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-05	MW-5-0.5-2.0	0.5	2	ft	Chromium	13.5	mg/kg	J	12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-06	MW-6-0.0-0.5	0	0.5	ft	Chromium	8	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	MW-06	MW-6-0.5-2.0	0.5	2	ft	Chromium	10.3	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	MW-07	MW-7-0.0-0.5	0	0.5	ft	Chromium	20.4	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-07	MW-7-0.5-2.0	0.5	2	ft	Chromium	15.9	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-08	MW-8-0.0-0.5	0	0.5	ft	Chromium	11.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	MW-08	MW-8-0.5-2.0	0.5	2	ft	Chromium	5.4	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	SO-06	SO-06				Chromium	1440	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SO-07	SO-07				Chromium	30.5	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-01	SS-1-0.0-0.5	0	0.5	ft	Chromium	77.2	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-01	SS-1-0.5-2.0	0.5	2	ft	Chromium	15.7	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-02	SS-2-0.0-0.5	0	0.5	ft	Chromium	212	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-02	SS-2-0.5-2.0	0.5	2	ft	Chromium	49.7	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-03	SS-3-0.0-0.5	0	0.5	ft	Chromium	155	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-03	SS-3-0.5-2.0	0.5	2	ft	Chromium	160	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-04	SS-4-0.0-0.5	0	0.5	ft	Chromium	17.6	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-04	SS-4-0.5-2.0	0.5	2	ft	Chromium	13	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-05	SS-5-0.0-0.5	0	0.5	ft	Chromium	19.1	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-05	SS-5-0.5-2.0	0.5	2	ft	Chromium	12.7	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-06	SS-6-0.0-0.5	0	0.5	ft	Chromium	29	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-06	SS-6-0.5-2.0	0.5	2	ft	Chromium	58.2	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-07	SS-7-0.0-0.5-D	0	0.5	ft	Chromium	21.3	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-07	SS-7-0.0-0.5	0	0.5	ft	Chromium	24.1	mg/kg		12,000	--	180,000	--	23	Yes	10.41	Yes
Open Area	SS-07	SS-7-0.5-2.0	0.5	2	ft	Chromium	10.7	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-08[1]	SS-8-0.0-0.5-D	0	0.5	ft	Chromium	10.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes
Open Area	SS-08[1]	SS-8-0.0-0.5	0	0.5	ft	Chromium	10.5	mg/kg		12,000	--	180,000	--	23	--	10.41	Yes

Table 5-7 Summary of Surface Soil Detections and Screening Level Exceedances for Chromium

Area	Sample Location	Sample Identification	Start Depth	End Depth	Depth Unit	Aanlyte	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Ecological Benchmark	Ecological Benchmark Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	SS-09[1]	SS-9-0.0-0.5-D	0	0.5	ft	Chromium	9.3	mg/kg		12,000	--	180,000	--	23	--	10.41	--
Open Area	SS-09[1]	SS-9-0.0-0.5	0	0.5	ft	Chromium	9.2	mg/kg		12,000	--	180,000	--	23	--	10.41	--

Notes
1. Surface soil samples SS-08 and SS-09 were collected from the offsite baseball field located south of the site.
ft = Feet/foot.
in = Inch.
mg/kg = Milligram per kilogram.
J = Analyte was positively identified, but the associated numerical value is estimated.
K = Numerical value is biased high.
L = Numerical value is biased low.

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Metals (ILM05.3/ISM02.4)											
Aluminum	7429-90-5	Subsurface Soil	mg/kg	1,470	22,300	JSB-2-2.0-5.0_05/16/2019	29/29	77,000	--	1,100,000	--
Antimony	7440-36-0	Subsurface Soil	mg/kg	ND	ND	--	0/29	31	--	470	--
Arsenic	7440-38-2	Subsurface Soil	mg/kg	2.7	11.4	MW-1-6.0-8.0_05/16/2019	24/29	0.68	1.68E+01	3	3.80E+00
Barium	7440-39-3	Subsurface Soil	mg/kg	22.7	231	JSB-6-5.0-10.0_01/16/2020	29/29	15,000	--	220,000	--
Beryllium	7440-41-7	Subsurface Soil	mg/kg	0.32	1.3	ACMW-2-2.0-5.0_01/15/2020	20/29	160	--	2,300	--
Cadmium	7440-43-9	Subsurface Soil	mg/kg	0.12	5.3	JSB-11-11.0-13.0_01/15/2020	17/29	71	--	980	--
Calcium	7440-70-2	Subsurface Soil	mg/kg	35,200	321,000	JSB-4-13.0-15.0_05/13/2019	29/29	NS	--	NS	--
Chromium (Trivalent)	7440-47-3	Subsurface Soil	mg/kg	9.9	1,530	ACMW-2-2.0-5.0_01/15/2020	29/29	12,000	---	180,000	---
Cobalt	7440-48-4	Subsurface Soil	mg/kg	2.2	12.3	ACMW-2-2.0-5.0_01/15/2020	28/29	23	--	350	--
Copper	7440-50-8	Subsurface Soil	mg/kg	4	36.1	JSB-11-11.0-13.0_01/15/2020	29/29	3,100	--	47,000	--
Iron	7439-89-6	Subsurface Soil	mg/kg	4,130	22,300	MW-1-6.0-8.0_05/16/2019	29/29	55,000	--	820,000	--
Lead	7439-92-1	Subsurface Soil	mg/kg	5.2	84.8	JSB-11-11.0-13.0_01/15/2020	29/29	400	--	800	--
Magnesium	7439-95-4	Subsurface Soil	mg/kg	1,210	3,820	JSB-2-2.0-5.0_05/16/2019	29/29	NS	--	NS	--
Manganese	7439-96-5	Subsurface Soil	mg/kg	310	1,630	DSB-8-2.0-5.0_05/16/2019	29/29	1,800	--	26,000	--
Mercury	7439-97-6	Subsurface Soil	mg/kg	0.032	0.69	JSB-4-2.0-5.0_05/13/2019	10/29	23	--	350	--
Nickel	7440-02-0	Subsurface Soil	mg/kg	7.4	167	ACMW-2-2.0-5.0_01/15/2020	29/29	1,500	--	22,000	--
Potassium	7440-09-7	Subsurface Soil	mg/kg	245	2,740	JSB-2-2.0-5.0_05/16/2019	29/29	NS	--	NS	--
Selenium	7782-49-2	Subsurface Soil	mg/kg	0.21	0.42	ACMW-1-5.0-10.0_01/15/2020, JSB-10-11.0-13.0_01/14/2020	16/29	390	--	5,800	--
Silver	7440-22-4	Subsurface Soil	mg/kg	0.032	28.6	ACMW-1-2.0-5.0_01/15/2020	8/29	390	--	5,800	--
Sodium	7440-23-5	Subsurface Soil	mg/kg	26.9	664	JSB-2-2.0-5.0_05/16/2019	22/29	NS	--	NS	--
Thallium	7440-28-0	Subsurface Soil	mg/kg	ND	ND	--	0/29	0.78	--	12	--
Vanadium	7440-62-2	Subsurface Soil	mg/kg	11.2	51.2	ACMW-2-2.0-5.0_01/15/2020	29/29	390	--	5,800	--
Zinc	7440-66-6	Subsurface Soil	mg/kg	14.1	57.7	JSB-11-11.0-13.0_01/15/2020	29/29	23,000	--	350,000	--
Hexavalent Chromium (SW7199)											
Chromium, hexavalent	18540-29-9	Subsurface Soil	mg/kg	0.24	82.2	ACMW-2-2.0-5.0_01/15/2020	29/29	0.3	2.74E+02	6.3	1.30E+01
Cyanide (ISM02.4)											
Cyanide	57-12-5	Subsurface Soil	mg/kg	0.039	0.26	JSB-2-2.0-5.0_05/16/2019	3/7	23	--	150	--
Volatile Organic Compounds (OLM04.2)											
1,1,1-trichloroethane	71-55-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	8100	--	36,000	--
1,1,2,2-tetrachloroethane	79-34-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.6	--	2.7	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--	28,000	--
1,1,2-trichloroethane	79-00-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--	5	--
1,1-dichloroethane	75-34-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	3.6	--	16	--
1,1-dichloroethene	75-35-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	230	--	1,000	--
1,2-Dibromo-3-chloropropane	96-12-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.0053	--	0.064	--
1,2-dibromoethane	106-93-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.036	--	0.16	--
1,2-dichloroethane	107-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.46	--	2	--
1,2-dichloropropane	78-87-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.5	--	11	--
2-butanone	78-93-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	27,000	--	190,000	--
2-hexanone	591-78-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	200	--	1,300	--
4-methyl-2-pentanone	108-10-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	33,000	--	140,000	--
Acetone	67-64-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	61,000	--	670,000	--
Benzene	71-43-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.2	--	5.1	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Bromodichloromethane	75-27-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.29	--	1.3	--
Bromoform	75-25-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	19	--	86	--
Bromomethane	74-83-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	6.8	--	30	--
Carbon disulfide	75-15-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	770	--	3,500	--
Carbon tetrachloride	56-23-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.65	--	2.9	--
Chlorobenzene	108-90-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	280	--	1,300	--
Chloroethane	75-00-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	14,000	--	57,000	--
Chloroform	67-66-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.32	--	1.4	--
Chloromethane	74-87-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	110	--	460	--
cis-1,2-dichloroethene	156-59-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	160	--	2,300	--
cis-1,3-dichloropropene	10061-01-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--	8.2	--
Cyclohexane	110-82-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,500	--	27,000	--
Dibromochloromethane	124-48-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	8.3	--	39	--
Dichlorodifluoromethane	75-71-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	87	--	370	--
Ethylbenzene	100-41-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	5.8	--	25	--
Isopropylbenzene	98-82-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,900	--	9,900	--
m,p-Xylene	179601-23-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	580	--	2,500	--
Methyl acetate	79-20-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	78,000	--	1,200,000	--
Methyl tert-butyl ether	1634-04-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	47	--	210	--
Methylcyclohexane	108-87-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,500	--	27,000	--
Methylene Chloride	75-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	57	--	1,000	--
o-Xylene	95-47-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	650	--	2,800	--
Styrene	100-42-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,000	--	35,000	--
Tetrachloroethene	127-18-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	24	--	100	--
Toluene	108-88-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,900	--	47,000	--
trans-1,2-dichloroethene	156-60-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,600	--	23,000	--
trans-1,3-dichloropropene	10061-02-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--	8.2	--
Trichloroethene	79-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.94	--	6	--
Trichlorofluoromethane	75-69-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	23,000	--	350,000	--
Vinyl chloride	75-01-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.059	--	1.7	--
Semivolatile Organic Compounds (OLM04.2)											
1,1'-Biphenyl	92-52-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	47	--	200	--
1,2,4-Trichlorobenzene	120-82-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	24	--	110	--
1,2-Dichlorobenzene	95-50-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--	9,300	--
1,3-Dichlorobenzene	541-73-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--	9,300	--
1,4-Dichlorobenzene	106-46-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.6	--	11	--
1-Methylnaphthalene	90-12-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	18	--	73	--
2,2-oxybis(1-chloropropane)	108-60-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,100	--	47,000	--
2,4,5-Trichlorophenol	95-95-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
2,4,6-Trichlorophenol	88-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	49	--	210	--
2,4-Dichlorophenol	120-83-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	190	--	2,500	--
2,4-Dimethylphenol	105-67-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,300	--	16,000	--
2,4-Dinitrophenol	51-28-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--	1,600	--
2,4-Dinitrotoluene	121-14-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.7	--	7.4	--
2,6-Dinitrotoluene	606-20-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.36	--	1.5	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
2-Chloronaphthalene	91-58-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,800	--	60,000	--
2-Chlorophenol	95-57-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	390	--	5,800	--
2-Methylnaphthalene	91-57-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	240	--	3,000	--
2-Methylphenol	95-48-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,200	--	41,000	--
2-Nitroaniline	88-74-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	630	--	8,000	--
2-Nitrophenol	88-75-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
3&4-methylphenol	34MP	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,200	--	41,000	--
3,3'-Dichlorobenzidine	91-94-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.2	--	5.1	--
3-Nitroaniline	99-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	5.1	--	66	--
4-Bromophenyl phenyl ether	101-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
4-chloro-3-methylphenol	59-50-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
4-Chloroaniline	106-47-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.7	--	11	--
4-Chlorophenyl phenyl ether	7005-72-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
4-Nitroaniline	100-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	27	--	110	--
4-Nitrophenol	100-02-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Acenaphthene	83-32-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,600	--	45,000	--
Acenaphthylene	208-96-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,600	--	45,000	--
Acetophenone	98-86-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	7,800	--	120,000	--
Anthracene	120-12-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	18,000	--	230,000	--
Atrazine	1912-24-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.4	--	10	--
Benzaldehyde	100-52-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	170	--	820	--
Benzo[a]anthracene	56-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--	21	--
Benzo[a]pyrene	50-32-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.11	--	2.1	--
Benzo[b]fluoranthene	205-99-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--	21	--
Benzo[g,h,i]perylene	191-24-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--	23,000	--
Benzo[k]fluoranthene	207-08-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	11	--	210	--
Benzyl alcohol	100-51-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
Benzyl butyl phthalate	85-68-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	290	--	1,200	--
Bis(2-chloroethoxy) methane	111-91-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	190	--	2,500	--
Bis(2-chloroethyl) ether	111-44-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.23	--	1	--
Bis(2-ethylhexyl) phthalate	117-81-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	39	--	160	--
Caprolactam	105-60-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	31,000	--	400,000	--
Carbazole	86-74-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Chrysene	218-01-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	110	--	2,100	--
Dibenz[a,h]anthracene	53-70-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.11	--	2.1	--
Dibenzofuran	132-64-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	78	--	1,200	--
Diethyl phthalate	84-66-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	51,000	--	660,000	--
Dimethyl phthalate	131-11-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
di-n-Butyl phthalate	84-74-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,300	--	82,000	--
Di-n-octyl phthalate	117-84-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	630	--	8,200	--
Fluoranthene	206-44-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,400	--	30,000	--
Fluorene	86-73-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,400	--	30,000	--
Hexachlorobenzene	118-74-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.21	--	0.96	--
Hexachlorobutadiene	87-68-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.2	--	5.3	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Hexachlorocyclopentadiene	77-47-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--	7.5	--
Hexachloroethane	67-72-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--	8	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--	21	--
Isophorone	78-59-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	570	--	2,400	--
Naphthalene	91-20-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	2	--	8.6	--
Nitrobenzene	98-95-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	5.1	--	22	--
n-Nitrosodi-n-propylamine	621-64-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.078	--	0.33	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Pentachlorophenol	87-86-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1	--	4	--
Phenanthrene	85-01-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	18,000	--	230,000	--
Phenol	108-95-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	19,000	--	250,000	--
Pyrene	129-00-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--	23,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Subsurface Soil	mg/kg	0.0022	0.0058	JSB-2-2.0-5.0_05/16/2019	3/11	1,300	--	16,000	--
Perfluorobutanoic acid	375-22-4	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Subsurface Soil	mg/kg	0.00071	0.00071	JSB-2-2.0-5.0_05/16/2019	1/11	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Subsurface Soil	mg/kg	0.00071	0.045	JSB-2-2.0-5.0_05/16/2019	9/11	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Subsurface Soil	mg/kg	0.00027	0.00027	JSB-11-2.0-5.0_01/15/2020	1/11	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/11	NS	--	NS	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	4.1	--	27	--
Aroclor 1221	11104-28-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.2	--	0.83	--
Aroclor 1232	11141-16-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.17	--	0.72	--
Aroclor 1242	53469-21-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.23	--	0.95	--
Aroclor 1248	12672-29-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.23	--	0.94	--
Aroclor 1254	11097-69-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.24	--	0.97	--
Aroclor 1260	11096-82-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.24	--	0.99	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	520	--	2,200	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	2,400	--	30,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	97	--	560	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020). RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways (November 2019) https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
3.. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
4. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (No screening value).

CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening value.
-- = Not applicable.

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Metals (ILM05.3/ISM02.4)											
Aluminum	7429-90-5	Subsurface Soil	mg/kg	1,470	22,300	JSB-2-2.0-5.0_05/16/2019	29/29	65,000	--	620,000	--
Antimony	7440-36-0	Subsurface Soil	mg/kg	ND	ND	--	0/29	15	--	310	--
Arsenic	7440-38-2	Subsurface Soil	mg/kg	2.7	11.4	MW-1-6.0-8.0_05/16/2019	24/29	24	--	200	--
Barium	7440-39-3	Subsurface Soil	mg/kg	22.7	231	JSB-6-5.0-10.0_01/16/2020	29/29	8,100	--	120,000	--
Beryllium	7440-41-7	Subsurface Soil	mg/kg	0.32	1.3	ACMW-2-2.0-5.0_01/15/2020	20/29	38	--	250	--
Cadmium	7440-43-9	Subsurface Soil	mg/kg	0.12	5.3	JSB-11-11.0-13.0_01/15/2020	17/29	52	--	810	--
Calcium	7440-70-2	Subsurface Soil	mg/kg	35,200	321,000	JSB-4-13.0-15.0_05/13/2019	29/29	NS	--	NS	--
Chromium (Trivalent)	7440-47-3	Subsurface Soil	mg/kg	9.9	1,530	ACMW-2-2.0-5.0_01/15/2020	29/29	33,000	---	120,000	---
Cobalt	7440-48-4	Subsurface Soil	mg/kg	2.2	12.3	ACMW-2-2.0-5.0_01/15/2020	28/29	680	--	6,300	--
Copper	7440-50-8	Subsurface Soil	mg/kg	4	36.1	JSB-11-11.0-13.0_01/15/2020	29/29	1,300	--	94,000	--
Iron	7439-89-6	Subsurface Soil	mg/kg	4,130	22,300	MW-1-6.0-8.0_05/16/2019	29/29	NS	--	NS	--
Lead	7439-92-1	Subsurface Soil	mg/kg	5.2	84.8	JSB-11-11.0-13.0_01/15/2020	29/29	500	--	1,600	--
Magnesium	7439-95-4	Subsurface Soil	mg/kg	1,210	3,820	JSB-2-2.0-5.0_05/16/2019	29/29	NS	--	NS	--
Manganese	7439-96-5	Subsurface Soil	mg/kg	310	1,630	DSB-8-2.0-5.0_05/16/2019	29/29	3,900	--	73,000	--
Mercury	7439-97-6	Subsurface Soil	mg/kg	0.032	0.69	JSB-4-2.0-5.0_05/13/2019	10/29	3.6	--	6.2	--
Nickel	7440-02-0	Subsurface Soil	mg/kg	7.4	167	ACMW-2-2.0-5.0_01/15/2020	29/29	840	--	8,800	--
Potassium	7440-09-7	Subsurface Soil	mg/kg	245	2,740	JSB-2-2.0-5.0_05/16/2019	29/29	NS	--	NS	--
Selenium	7782-49-2	Subsurface Soil	mg/kg	0.21	0.42	ACMW-1-5.0-10.0_01/15/2020, JSB-10-11.0-13.0_01/14/2020	16/29	310	--	4,900	--
Silver	7440-22-4	Subsurface Soil	mg/kg	0.032	28.6	ACMW-1-2.0-5.0_01/15/2020	8/29	97	--	2,300	--
Sodium	7440-23-5	Subsurface Soil	mg/kg	26.9	664	JSB-2-2.0-5.0_05/16/2019	22/29	NS	--	NS	--
Thallium	7440-28-0	Subsurface Soil	mg/kg	ND	ND	--	0/29	5.3	--	65	--
Vanadium	7440-62-2	Subsurface Soil	mg/kg	11.2	51.2	ACMW-2-2.0-5.0_01/15/2020	29/29	76	--	620	--
Zinc	7440-66-6	Subsurface Soil	mg/kg	14.1	57.7	JSB-11-11.0-13.0_01/15/2020	29/29	9,900	--	250,000	--
Hexavalent Chromium (SW7199)											
Chromium, hexavalent	18540-29-9	Subsurface Soil	mg/kg	0.24	82.2	ACMW-2-2.0-5.0_01/15/2020	29/29	120	--	1,000	--
Cyanide (ISM02.4)											
Cyanide	57-12-5	Subsurface Soil	mg/kg	0.039	0.26	JSB-2-2.0-5.0_05/16/2019	3/7	45	--	370	--
Volatile Organic Compounds (OLM04.2)											
1,1,1-trichloroethane	71-55-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	53,000	--	100,000	--
1,1,2,2-tetrachloroethane	79-34-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	30	--	140	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	74,000	--	110,000	--
1,1,2-trichloroethane	79-00-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	18	--	35	--
1,1-dichloroethane	75-34-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	11,000	--	41,000	--
1,1-dichloroethene	75-35-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,300	--	6,400	--
1,2-Dibromo-3-chloropropane	96-12-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.15	--	0.26	--
1,2-dibromoethane	106-93-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.5	--	8.7	--
1,2-dichloroethane	107-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	41	--	110	--
1,2-dichloropropane	78-87-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	61	--	86	--
2-butanone	78-93-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	40,000	--	190,000	--
2-hexanone	591-78-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	270	--	940	--
4-methyl-2-pentanone	108-10-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	5,900	--	41,000	--
Acetone	67-64-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	66,000	--	440,000	--
Benzene	71-43-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	120	--	240	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Bromodichloromethane	75-27-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	98	--	460	--
Bromoform	75-25-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	400	--	1,000	--
Bromomethane	74-83-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	46	--	100	--
Carbon disulfide	75-15-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,600	--	13,000	--
Carbon tetrachloride	56-23-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	35	--	81	--
Chlorobenzene	108-90-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	520	--	1,000	--
Chloroethane	75-00-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	27,000	--	140,000	--
Chloroform	67-66-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	16	--	26	--
Chloromethane	74-87-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	140	--	290	--
cis-1,2-dichloroethene	156-59-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	140	--	790	--
cis-1,3-dichloropropene	10061-01-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	8	--	53	--
Cyclohexane	110-82-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	75,000	--	130,000	--
Dibromochloromethane	124-48-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	72	--	340	--
Dichlorodifluoromethane	75-71-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,400	--	2,100	--
Ethylbenzene	100-41-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,400	--	29,000	--
Isopropylbenzene	98-82-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,300	--	11,000	--
m,p-Xylene	179601-23-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	8,900	--	13,000	--
Methyl acetate	79-20-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	82,000	--	1,000,000	--
Methyl tert-butyl ether	1634-04-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	800	--	2,000	--
Methylcyclohexane	108-87-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	41,000	--	64,000	--
Methylene Chloride	75-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,600	--	12,000	--
o-Xylene	95-47-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	48,000	--	91,000	--
Styrene	100-42-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--	15,000	--
Tetrachloroethene	127-18-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	710	--	1,400	--
Toluene	108-88-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	5,900	--	42,000	--
trans-1,2-dichloroethene	156-60-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	590	--	1,200	--
trans-1,3-dichloropropene	10061-02-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	36	--	99	--
Trichloroethene	79-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	18	--	40	--
Trichlorofluoromethane	75-69-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	25,000	--	310,000	--
Vinyl chloride	75-01-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	3.7	--	15	--
Semivolatile Organic Compounds (OLM04.2)											
1,1'-Biphenyl	92-52-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	12,000	--	85,000	--
1,2,4-Trichlorobenzene	120-82-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	120	--	200	--
1,2-Dichlorobenzene	95-50-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	720	--	1,100	--
1,3-Dichlorobenzene	541-73-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	120	--	170	--
1,4-Dichlorobenzene	106-46-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	250	--	1,200	--
1-Methylnaphthalene	90-12-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	150	--	600	--
2,2-oxybis(1-chloropropane)	108-60-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	51	--	150	--
2,4,5-Trichlorophenol	95-95-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--	68,000	--
2,4,6-Trichlorophenol	88-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	67	--	680	--
2,4-Dichlorophenol	120-83-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	200	--	2,000	--
2,4-Dimethylphenol	105-67-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,300	--	14,000	--
2,4-Dinitrophenol	51-28-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--	1,400	--
2,4-Dinitrotoluene	121-14-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6.9	--	28	--
2,6-Dinitrotoluene	606-20-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6.9	--	28	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
2-Chloronaphthalene	91-58-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	5,000	--	50,000	--
2-Chlorophenol	95-57-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	410	--	5,100	--
2-Methylnaphthalene	91-57-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	250	--	2,500	--
2-Methylphenol	95-48-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,300	--	34,000	--
2-Nitroaniline	88-74-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	14	--	50	--
2-Nitrophenol	88-75-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--	1,400	--
3&4-methylphenol	34MP	Subsurface Soil	mg/kg	ND	ND	--	0/2	330	--	3,400	--
3,3'-Dichlorobenzidine	91-94-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	10	--	42	--
3-Nitroaniline	99-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	15	--	59	--
4,6-Dinitro-2-methylphenol	534-52-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	6.7	--	68	--
4-Bromophenyl phenyl ether	101-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.28	--	1.2	--
4-chloro-3-methylphenol	59-50-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	330	--	3,400	--
4-Chloroaniline	106-47-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	23	--	95	--
4-Chlorophenyl phenyl ether	7005-72-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.16	--	0.98	--
4-Nitroaniline	100-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	220	--	950	--
4-Nitrophenol	100-02-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--	1,400	--
Acenaphthene	83-32-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,000	--	37,000	--
Acenaphthylene	208-96-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,800	--	37,000	--
Acetophenone	98-86-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--	68,000	--
Anthracene	120-12-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	18,000	--	190,000	--
Atrazine	1912-24-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	21	--	86	--
Benzaldehyde	100-52-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	8,200	--	100,000	--
Benzo[a]anthracene	56-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	41	--	170	--
Benzo[a]pyrene	50-32-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	4.1	--	17	--
Benzo[b]fluoranthene	205-99-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	42	--	170	--
Benzo[g,h,i]perylene	191-24-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--	19,000	--
Benzo[k]fluoranthene	207-08-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	420	--	1,700	--
Benzyl alcohol	100-51-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--	68,000	--
Benzyl butyl phthalate	85-68-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,600	--	10,000	--
Bis(2-chloroethoxy) methane	111-91-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	3.1	--	9.1	--
Bis(2-chloroethyl) ether	111-44-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.2	--	4.9	--
Bis(2-ethylhexyl) phthalate	117-81-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	43	--	560	--
Caprolactam	105-60-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	33,000	--	340,000	--
Carbazole	86-74-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	230	--	950	--
Chrysene	218-01-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,100	--	17,000	--
Dibenz[a,h]anthracene	53-70-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	4	--	17	--
Dibenzofuran	132-64-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	270	--	2,700	--
Diethyl phthalate	84-66-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	53,000	--	550,000	--
Dimethyl phthalate	131-11-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	53,000	--	550,000	--
di-n-Butyl phthalate	84-74-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,200	--	68,000	--
Di-n-octyl phthalate	117-84-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	640	--	6,800	--
Fluoranthene	206-44-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,300	--	25,000	--
Fluorene	86-73-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,300	--	25,000	--
Hexachlorobenzene	118-74-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--	8.7	--
Hexachlorobutadiene	87-68-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	20	--	41	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Hexachlorocyclopentadiene	77-47-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	14	--	20	--
Hexachloroethane	67-72-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	46	--	450	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	42	--	170	--
Isophorone	78-59-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,900	--	20,000	--
Naphthalene	91-20-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	220	--	360	--
Nitrobenzene	98-95-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	66	--	110	--
n-Nitrosodi-n-propylamine	621-64-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.4	--	1.4	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Subsurface Soil	mg/kg	ND	ND	--	0/2	570	--	1,900	--
Pentachlorophenol	87-86-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.73	--	32	--
Phenanthrene	85-01-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,700	--	19,000	--
Phenol	108-95-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--	2,700	--
Pyrene	129-00-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,700	--	19,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Subsurface Soil	mg/kg	0.0022	0.0058	JSB-2-2.0-5.0_05/16/2019	3/11	86	--	600	--
Perfluorobutanoic acid	375-22-4	Subsurface Soil	mg/kg	ND	ND	--	0/11	180	--	1,100	--
Perfluorodecanesulfonic acid	335-77-3	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.8	--	8.2	--
Perfluorodecanoic acid	335-76-2	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.99	--	9.4	--
Perfluorododecanoic acid	307-55-1	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.79	--	7.5	--
Perfluoroheptanoic acid	375-85-9	Subsurface Soil	mg/kg	ND	ND	--	0/11	1.5	--	16	--
Perfluorohexanesulfonic acid	355-46-4	Subsurface Soil	mg/kg	0.00071	0.00071	JSB-2-2.0-5.0_05/16/2019	1/11	0.25	--	2.2	--
Perfluorohexanoic acid	307-24-4	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.25	--	2.6	--
Perfluorononanoic acid	375-95-1	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.76	--	6.1	--
Perfluorooctanesulfonamide	754-91-6	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.058	--	0.087	--
Perfluorooctanesulfonic acid	1763-23-1	Subsurface Soil	mg/kg	0.00071	0.045	JSB-2-2.0-5.0_05/16/2019	9/11	1.5	--	15	--
Perfluorooctanoic acid	335-67-1	Subsurface Soil	mg/kg	0.00027	0.00027	JSB-11-2.0-5.0_01/15/2020	1/11	0.6	--	2.4	--
Perfluoropentanoic acid	2706-90-3	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.25	--	2.6	--
Perfluorotetradecanoic acid	376-06-7	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.51	--	8.2	--
Perfluorotridecanoic acid	72629-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.61	--	8.2	--
Perfluoroundecanoic acid	2058-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.8	--	8.2	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1221	11104-28-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1232	11141-16-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1242	53469-21-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1248	12672-29-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1254	11097-69-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Aroclor 1260	11096-82-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	12,000	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--	12,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	1,600	--	3,900	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020). RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways (November 2019) https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
3.. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
4. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (No screening value).

CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening value.
-- = Not applicable.

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Metals (ILM05.3/ISM02.4)									
Aluminum	7429-90-5	Subsurface Soil	mg/kg	1,470	22,300	JSB-2-2.0-5.0_05/16/2019	29/29	65,000	--
Antimony	7440-36-0	Subsurface Soil	mg/kg	ND	ND	--	0/29	15	--
Arsenic	7440-38-2	Subsurface Soil	mg/kg	2.7	11.4	MW-1-6.0-8.0_05/16/2019	24/29	0.68	1.68E+01
Barium	7440-39-3	Subsurface Soil	mg/kg	22.7	231	JSB-6-5.0-10.0_01/16/2020	29/29	8,100	--
Beryllium	7440-41-7	Subsurface Soil	mg/kg	0.32	1.3	ACMW-2-2.0-5.0_01/15/2020	20/29	38	--
Cadmium	7440-43-9	Subsurface Soil	mg/kg	0.12	5.3	JSB-11-11.0-13.0_01/15/2020	17/29	52	--
Calcium	7440-70-2	Subsurface Soil	mg/kg	35,200	321,000	JSB-4-13.0-15.0_05/13/2019	29/29	NS	--
Chromium (Trivalent)	7440-47-3	Subsurface Soil	mg/kg	9.9	1,530	ACMW-2-2.0-5.0_01/15/2020	29/29	12,000	--
Cobalt	7440-48-4	Subsurface Soil	mg/kg	2.2	12.3	ACMW-2-2.0-5.0_01/15/2020	28/29	23	--
Copper	7440-50-8	Subsurface Soil	mg/kg	4	36.1	JSB-11-11.0-13.0_01/15/2020	29/29	1,300	--
Iron	7439-89-6	Subsurface Soil	mg/kg	4,130	22,300	MW-1-6.0-8.0_05/16/2019	29/29	55,000	--
Lead	7439-92-1	Subsurface Soil	mg/kg	5.2	84.8	JSB-11-11.0-13.0_01/15/2020	29/29	400	--
Magnesium	7439-95-4	Subsurface Soil	mg/kg	1,210	3,820	JSB-2-2.0-5.0_05/16/2019	29/29	NS	--
Manganese	7439-96-5	Subsurface Soil	mg/kg	310	1,630	DSB-8-2.0-5.0_05/16/2019	29/29	1,800	--
Mercury	7439-97-6	Subsurface Soil	mg/kg	0.032	0.69	JSB-4-2.0-5.0_05/13/2019	10/29	3.6	--
Nickel	7440-02-0	Subsurface Soil	mg/kg	7.4	167	ACMW-2-2.0-5.0_01/15/2020	29/29	840	--
Potassium	7440-09-7	Subsurface Soil	mg/kg	245	2,740	JSB-2-2.0-5.0_05/16/2019	29/29	NS	--
Selenium	7782-49-2	Subsurface Soil	mg/kg	0.21	0.42	ACMW-1-5.0-10.0_01/15/2020, JSB-10-11.0-13.0_01/14/2020	16/29	310	--
Silver	7440-22-4	Subsurface Soil	mg/kg	0.032	28.6	ACMW-1-2.0-5.0_01/15/2020	8/29	97	--
Sodium	7440-23-5	Subsurface Soil	mg/kg	26.9	664	JSB-2-2.0-5.0_05/16/2019	22/29	NS	--
Thallium	7440-28-0	Subsurface Soil	mg/kg	ND	ND	--	0/29	0.78	--
Vanadium	7440-62-2	Subsurface Soil	mg/kg	11.2	51.2	ACMW-2-2.0-5.0_01/15/2020	29/29	76	--
Zinc	7440-66-6	Subsurface Soil	mg/kg	14.1	57.7	JSB-11-11.0-13.0_01/15/2020	29/29	9,900	--
Hexavalent Chromium (SW7199)									
Chromium, hexavalent	18540-29-9	Subsurface Soil	mg/kg	0.24	82.2	ACMW-2-2.0-5.0_01/15/2020	29/29	0.3	2.74E+02
Cyanide (ISM02.4)									
Cyanide	57-12-5	Subsurface Soil	mg/kg	0.039	0.26	JSB-2-2.0-5.0_05/16/2019	3/7	23	--
Volatile Organic Compounds (OLM04.2)									
1,1,1-trichloroethane	71-55-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	36,000	--
1,1,2,2-tetrachloroethane	79-34-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.6	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--
1,1,2-trichloroethane	79-00-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--
1,1-dichloroethane	75-34-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	3.6	--
1,1-dichloroethene	75-35-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	230	--
1,2-Dibromo-3-chloropropane	96-12-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.0053	--
1,2-dibromoethane	106-93-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.036	--
1,2-dichloroethane	107-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.46	--
1,2-dichloropropane	78-87-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.5	--
2-butanone	78-93-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	27,000	--
2-hexanone	591-78-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	200	--
4-methyl-2-pentanone	108-10-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	5,900	--
Acetone	67-64-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	61,000	--
Benzene	71-43-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.2	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Bromodichloromethane	75-27-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.29	--
Bromoform	75-25-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	19	--
Bromomethane	74-83-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	6.8	--
Carbon disulfide	75-15-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	770	--
Carbon tetrachloride	56-23-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.65	--
Chlorobenzene	108-90-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	280	--
Chloroethane	75-00-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	14,000	--
Chloroform	67-66-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.32	--
Chloromethane	74-87-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	110	--
cis-1,2-dichloroethene	156-59-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	140	--
cis-1,3-dichloropropene	10061-01-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--
Cyclohexane	110-82-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,500	--
Dibromochloromethane	124-48-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	8.3	--
Dichlorodifluoromethane	75-71-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	87	--
Ethylbenzene	100-41-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	5.8	--
Isopropylbenzene	98-82-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,900	--
m,p-Xylene	179601-23-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	580	--
Methyl acetate	79-20-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	78,000	--
Methyl tert-butyl ether	1634-04-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	47	--
Methylcyclohexane	108-87-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,500	--
Methylene Chloride	75-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	57	--
o-Xylene	95-47-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	650	--
Styrene	100-42-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,000	--
Tetrachloroethene	127-18-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	24	--
Toluene	108-88-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,900	--
trans-1,2-dichloroethene	156-60-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	590	--
trans-1,3-dichloropropene	10061-02-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--
Trichloroethene	79-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.94	--
Trichlorofluoromethane	75-69-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	23,000	--
Vinyl chloride	75-01-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.059	--
Semivolatile Organic Compounds (OLM04.2)									
1,1'-Biphenyl	92-52-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	47	--
1,2,4-Trichlorobenzene	120-82-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	24	--
1,2-Dichlorobenzene	95-50-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	720	--
1,3-Dichlorobenzene	541-73-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	120	--
1,4-Dichlorobenzene	106-46-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.6	--
1-Methylnaphthalene	90-12-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	18	--
2,2-oxybis(1-chloropropane)	108-60-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	51	--
2,4,5-Trichlorophenol	95-95-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,300	--
2,4,6-Trichlorophenol	88-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	49	--
2,4-Dichlorophenol	120-83-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	190	--
2,4-Dimethylphenol	105-67-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,300	--
2,4-Dinitrophenol	51-28-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--
2,4-Dinitrotoluene	121-14-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.7	--
2,6-Dinitrotoluene	606-20-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.36	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
2-Chloronaphthalene	91-58-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	4,800	--
2-Chlorophenol	95-57-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	390	--
2-Methylnaphthalene	91-57-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	240	--
2-Methylphenol	95-48-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,200	--
2-Nitroaniline	88-74-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	14	--
2-Nitrophenol	88-75-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--
3&4-methylphenol	34MP	Subsurface Soil	mg/kg	ND	ND	--	0/2	330	--
3,3'-Dichlorobenzidine	91-94-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.2	--
3-Nitroaniline	99-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	15	--
4,6-Dinitro-2-methylphenol	534-52-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	5.1	--
4-Bromophenyl phenyl ether	101-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.28	--
4-chloro-3-methylphenol	59-50-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	330	--
4-Chloroaniline	106-47-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.7	--
4-Chlorophenyl phenyl ether	7005-72-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.16	--
4-Nitroaniline	100-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	27	--
4-Nitrophenol	100-02-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	130	--
Acenaphthene	83-32-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,000	--
Acenaphthylene	208-96-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	3,600	--
Acetophenone	98-86-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,700	--
Anthracene	120-12-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	18,000	--
Atrazine	1912-24-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	2.4	--
Benzaldehyde	100-52-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	170	--
Benzo[a]anthracene	56-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Benzo[a]pyrene	50-32-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.11	--
Benzo[b]fluoranthene	205-99-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Benzo[g,h,i]perylene	191-24-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--
Benzo[k]fluoranthene	207-08-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	11	--
Benzyl alcohol	100-51-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,300	--
Benzyl butyl phthalate	85-68-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	290	--
Bis(2-chloroethoxy) methane	111-91-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	3.1	--
Bis(2-chloroethyl) ether	111-44-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.23	--
Bis(2-ethylhexyl) phthalate	117-81-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	39	--
Caprolactam	105-60-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	31,000	--
Carbazole	86-74-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	230	--
Chrysene	218-01-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	110	--
Dibenz[a,h]anthracene	53-70-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.11	--
Dibenzofuran	132-64-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	78	--
Diethyl phthalate	84-66-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	51,000	--
Dimethyl phthalate	131-11-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	53,000	--
di-n-Butyl phthalate	84-74-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	6,200	--
Di-n-octyl phthalate	117-84-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	630	--
Fluoranthene	206-44-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,300	--
Fluorene	86-73-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	2,300	--
Hexachlorobenzene	118-74-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.21	--
Hexachlorobutadiene	87-68-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.2	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Hexachlorocyclopentadiene	77-47-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--
Hexachloroethane	67-72-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.8	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.1	--
Isophorone	78-59-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	570	--
Naphthalene	91-20-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	2	--
Nitrobenzene	98-95-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	5.1	--
n-Nitrosodi-n-propylamine	621-64-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.078	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Subsurface Soil	mg/kg	ND	ND	--	0/2	570	--
Pentachlorophenol	87-86-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.73	--
Phenanthrene	85-01-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,700	--
Phenol	108-95-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,800	--
Pyrene	129-00-0	Subsurface Soil	mg/kg	ND	ND	--	0/2	1,700	--
PFAS (E537.0M)									
Perfluorobutanesulfonic acid	375-73-5	Subsurface Soil	mg/kg	0.0022	0.0058	JSB-2-2.0-5.0_05/16/2019	3/11	86	--
Perfluorobutanoic acid	375-22-4	Subsurface Soil	mg/kg	ND	ND	--	0/11	180	--
Perfluorodecanesulfonic acid	335-77-3	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.8	--
Perfluorodecanoic acid	335-76-2	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.99	--
Perfluorododecanoic acid	307-55-1	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.79	--
Perfluoroheptanoic acid	375-85-9	Subsurface Soil	mg/kg	ND	ND	--	0/11	1.5	--
Perfluorohexanesulfonic acid	355-46-4	Subsurface Soil	mg/kg	0.00071	0.00071	JSB-2-2.0-5.0_05/16/2019	1/11	0.25	--
Perfluorohexanoic acid	307-24-4	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.25	--
Perfluorononanoic acid	375-95-1	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.76	--
Perfluorooctanesulfonamide	754-91-6	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.058	--
Perfluorooctanesulfonic acid	1763-23-1	Subsurface Soil	mg/kg	0.00071	0.045	JSB-2-2.0-5.0_05/16/2019	9/11	1.5	--
Perfluorooctanoic acid	335-67-1	Subsurface Soil	mg/kg	0.00027	0.00027	JSB-11-2.0-5.0_01/15/2020	1/11	0.6	--
Perfluoropentanoic acid	2706-90-3	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.25	--
Perfluorotetradecanoic acid	376-06-7	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.51	--
Perfluorotridecanoic acid	72629-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.61	--
Perfluoroundecanoic acid	2058-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/11	0.8	--
PCB Aroclors (OLM04.2)									
Aroclor 1016	12674-11-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	4.1	--
Aroclor 1221	11104-28-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.2	--
Aroclor 1232	11141-16-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.17	--
Aroclor 1242	53469-21-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.23	--
Aroclor 1248	12672-29-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.23	--
Aroclor 1254	11097-69-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.24	--
Aroclor 1260	11096-82-5	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.24	--

Table 5-8 Process Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Total Petroleum Hydrocarbons (TX1005)									
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	520	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	2,300	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	97	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020). RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.
2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways (November 2019) https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.
3. Ecological screening levels for soil are only applicable to surface or shallow subsurface soil.
3.. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
4. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (No screening value).

CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening value.
-- = Not applicable.

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Metals (ILM05.3/ISM02.4)											
Aluminum	7429-90-5	Subsurface Soil	mg/kg	1,960	18,800	MW-2-14.0-16.0_05/14/2019, DSB-4-13.0-15.0_05/14/2019	44/44	77,000	--	1,100,000	--
Antimony	7440-36-0	Subsurface Soil	mg/kg	ND	ND	--	0/44	31	--	470	--
Arsenic	7440-38-2	Subsurface Soil	mg/kg	2.4	22.1	DSB-5-9.0-11.0_05/14/2019	40/44	0.68	3.25E+01	3	7.37E+00
Barium	7440-39-3	Subsurface Soil	mg/kg	25.8	794	DSB-9-2.0-5.0_05/13/2019	44/44	15,000	--	220,000	--
Beryllium	7440-41-7	Subsurface Soil	mg/kg	0.53	1	JSB-9-2.0-5.0_01/14/2020	18/44	160	--	2,300	--
Cadmium	7440-43-9	Subsurface Soil	mg/kg	0.087	2.3	DSB-7-2.0-5.0_05/15/2019	16/44	71	--	980	--
Calcium	7440-70-2	Subsurface Soil	mg/kg	68,100	374,000	DSB-2-9.0-11.0_05/13/2019	44/44	NS	--	NS	--
Chromium (Trivalent)	7440-47-3	Subsurface Soil	mg/kg	4.1	274	DSB-7-2.0-5.0_05/15/2019	44/44	12,000	---	180,000	---
Cobalt	7440-48-4	Subsurface Soil	mg/kg	2.4	22.4	JSB-7-10.0-15.0_01/13/2020	44/44	23	--	350	--
Copper	7440-50-8	Subsurface Soil	mg/kg	2.9	82.6	JSB-8-2.0-5.0_01/13/2020	44/44	3,100	--	47,000	--
Iron	7439-89-6	Subsurface Soil	mg/kg	3,900	27,800	DSB-6-13.0-15.0_05/14/2019	44/44	55,000	--	820,000	--
Lead	7439-92-1	Subsurface Soil	mg/kg	4.3	81.8	DSB-7-2.0-5.0_05/15/2019	44/44	400	--	800	--
Magnesium	7439-95-4	Subsurface Soil	mg/kg	1,230	3,400	MW-2-14.0-16.0_05/14/2019	44/44	NS	--	NS	--
Manganese	7439-96-5	Subsurface Soil	mg/kg	283	1,640	MW-2-14.0-16.0_05/14/2019	44/44	1,800	--	26,000	--
Mercury	7439-97-6	Subsurface Soil	mg/kg	0.004	1.1	DSB-7-2.0-5.0_05/15/2019	23/44	23	--	350	--
Nickel	7440-02-0	Subsurface Soil	mg/kg	8.5	254	DSB-7-2.0-5.0_05/15/2019	44/44	1,500	--	22,000	--
Potassium	7440-09-7	Subsurface Soil	mg/kg	218	2,070	MW-2-14.0-16.0_05/14/2019	43/44	NS	--	NS	--
Selenium	7782-49-2	Subsurface Soil	mg/kg	0.32	0.68	MW-7-2.0-5.0_01/14/2020	20/44	390	--	5,800	--
Silver	7440-22-4	Subsurface Soil	mg/kg	0.017	0.06	JSB-9-2.0-5.0_01/14/2020	3/44	390	--	5,800	--
Sodium	7440-23-5	Subsurface Soil	mg/kg	38.3	250	DSB-3-8.0-10.0_05/15/2019	26/44	NS	--	NS	--
Thallium	7440-28-0	Subsurface Soil	mg/kg	0.015	0.13	MW-2-14.0-16.0_05/14/2019	7/44	0.78	--	12	--
Vanadium	7440-62-2	Subsurface Soil	mg/kg	0.31	53.3	DSB-6-13.0-15.0_05/14/2019	44/44	390	--	5,800	--
Zinc	7440-66-6	Subsurface Soil	mg/kg	14.6	68.1	DSB-7-2.0-5.0_05/15/2019	44/44	23,000	--	350,000	--
Hexavalent Chromium (SW7199)											
Chromium, hexavalent	18540-29-9	Subsurface Soil	mg/kg	0.17	25.4	DSB-7-2.0-5.0_05/15/2019	36/44	0.3	8.47E+01	6.3	4.03E+00
Cyanide (ISM02.4)											
Cyanide	57-12-5	Subsurface Soil	mg/kg	0.15	0.22	DSB-2-2.0-5.0_05/13/2019	2/18	23	--	150	--
Volatile Organic Compounds (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	8,100	--	36,000	--
1,1,2,2-tetrachloroethane	79-34-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.6	--	2.7	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--	28,000	--
1,1,2-Trichloroethane	79-00-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--	5	--
1,1-Dichloroethane	75-34-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	3.6	--	16	--
1,1-Dichloroethene	75-35-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	230	--	1,000	--
1,2-Dibromo-3-chloropropane	96-12-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.0053	--	0.064	--
1,2-Dibromoethane	106-93-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.036	--	0.16	--
1,2-Dichloroethane	107-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.46	--	2	--
1,2-Dichloropropane	78-87-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.5	--	11	--
2-Butanone	78-93-3	Subsurface Soil	mg/kg	0.0064	0.0064	MW-3-9.0-11.0_05/15/2019	1/1	27,000	--	190,000	--
2-Hexanone	591-78-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	200	--	1,300	--
4-Methyl-2-pentanone	108-10-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	33,000	--	140,000	--
Acetone	67-64-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	61,000	--	670,000	--
Benzene	71-43-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.2	--	5.1	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Bromodichloromethane	75-27-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.29	--	1.3	--
Bromoform	75-25-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	19	--	86	--
Bromomethane	74-83-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	6.8	--	30	--
Carbon disulfide	75-15-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	770	--	3,500	--
Carbon tetrachloride	56-23-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.65	--	2.9	--
Chlorobenzene	108-90-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	280	--	1,300	--
Chloroethane	75-00-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	14,000	--	57,000	--
Chloroform	67-66-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.32	--	1.4	--
Chloromethane	74-87-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	110	--	460	--
cis-1,2-dichloroethene	156-59-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	160	--	2,300	--
cis-1,3-dichloropropene	10061-01-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--	8.2	--
Cyclohexane	110-82-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,500	--	27,000	--
Dibromochloromethane	124-48-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	8.3	--	39	--
Dichlorodifluoromethane	75-71-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	87	--	370	--
Ethylbenzene	100-41-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	5.8	--	25	--
Isopropylbenzene	98-82-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,900	--	9,900	--
m,p-Xylene	179601-23-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	580	--	2,500	--
Methyl acetate	79-20-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	78,000	--	1,200,000	--
Methyl tert-butyl ether	1634-04-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	47	--	210	--
Methylcyclohexane	108-87-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,500	--	27,000	--
Methylene Chloride	75-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	57	--	1,000	--
o-Xylene	95-47-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	650	--	2,800	--
Styrene	100-42-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,000	--	35,000	--
Tetrachloroethene	127-18-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	24	--	100	--
Toluene	108-88-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,900	--	47,000	--
trans-1,2-dichloroethene	156-60-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,600	--	23,000	--
trans-1,3-dichloropropene	10061-02-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--	8.2	--
Trichloroethene	79-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.94	--	6	--
Trichlorofluoromethane	75-69-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	23,000	--	350,000	--
Vinyl chloride	75-01-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.059	--	1.7	--
Semivolatile Organic Compounds (OLM04.2)											
1,1'-Biphenyl	92-52-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	47	--	200	--
1,2,4-Trichlorobenzene	120-82-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	24	--	110	--
1,2-Dichlorobenzene	95-50-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--	9,300	--
1,3-Dichlorobenzene	541-73-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--	9,300	--
1,4-Dichlorobenzene	106-46-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.6	--	11	--
1-Methylnaphthalene	90-12-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	18	--	73	--
2,2-oxybis(1-chloropropane)	108-60-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,100	--	47,000	--
2,4,5-Trichlorophenol	95-95-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
2,4,6-Trichlorophenol	88-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	49	--	210	--
2,4-Dichlorophenol	120-83-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	190	--	2,500	--
2,4-Dimethylphenol	105-67-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,300	--	16,000	--
2,4-Dinitrophenol	51-28-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--	1,600	--
2,4-Dinitrotoluene	121-14-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.7	--	7.4	--
2,6-Dinitrotoluene	606-20-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.36	--	1.5	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
2-Chloronaphthalene	91-58-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,800	--	60,000	--
2-Chlorophenol	95-57-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	390	--	5,800	--
2-Methylnaphthalene	91-57-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	240	--	3,000	--
2-Methylphenol	95-48-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,200	--	41,000	--
2-Nitroaniline	88-74-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	630	--	8,000	--
2-Nitrophenol	88-75-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
3&4-methylphenol	34MP	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,200	--	41,000	--
3,3'-Dichlorobenzidine	91-94-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.2	--	5.1	--
3-Nitroaniline	99-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	5.1	--	66	--
4-Bromophenyl phenyl ether	101-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-chloro-3-methylphenol	59-50-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
4-Chloroaniline	106-47-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.7	--	11	--
4-Chlorophenyl phenyl ether	7005-72-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
4-Nitroaniline	100-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	27	--	110	--
4-Nitrophenol	100-02-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Acenaphthene	83-32-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,600	--	45,000	--
Acenaphthylene	208-96-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,600	--	45,000	--
Acetophenone	98-86-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	7,800	--	120,000	--
Anthracene	120-12-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	18,000	--	230,000	--
Atrazine	1912-24-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.4	--	10	--
Benzaldehyde	100-52-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	170	--	820	--
Benzo[a]anthracene	56-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--	21	--
Benzo[a]pyrene	50-32-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.11	--	2.1	--
Benzo[b]fluoranthene	205-99-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--	21	--
Benzo[g,h,i]perylene	191-24-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--	23,000	--
Benzo[k]fluoranthene	207-08-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	11	--	210	--
Benzyl alcohol	100-51-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
Benzyl butyl phthalate	85-68-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	290	--	1,200	--
Bis(2-chloroethoxy) methane	111-91-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	190	--	2,500	--
Bis(2-chloroethyl) ether	111-44-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.23	--	1	--
Bis(2-ethylhexyl) phthalate	117-81-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	39	--	160	--
Caprolactam	105-60-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	31,000	--	400,000	--
Carbazole	86-74-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Chrysene	218-01-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	110	--	2,100	--
Dibenz[a,h]anthracene	53-70-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.11	--	2.1	--
Dibenzofuran	132-64-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	78	--	1,200	--
Diethyl phthalate	84-66-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	51,000	--	660,000	--
Dimethyl phthalate	131-11-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
di-n-Butyl phthalate	84-74-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,300	--	82,000	--
Di-n-octyl phthalate	117-84-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	630	--	8,200	--
Fluoranthene	206-44-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,400	--	30,000	--
Fluorene	86-73-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,400	--	30,000	--
Hexachlorobenzene	118-74-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.21	--	0.96	--
Hexachlorobutadiene	87-68-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.2	--	5.3	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Hexachlorocyclopentadiene	77-47-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--	7.5	--
Hexachloroethane	67-72-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--	8	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--	21	--
Isophorone	78-59-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	570	--	2,400	--
Naphthalene	91-20-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	2	--	8.6	--
Nitrobenzene	98-95-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	5.1	--	22	--
n-Nitrosodi-n-propylamine	621-64-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.078	--	0.33	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Pentachlorophenol	87-86-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1	--	4	--
Phenanthrene	85-01-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	18,000	--	230,000	--
Phenol	108-95-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	19,000	--	250,000	--
Pyrene	129-00-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--	23,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Subsurface Soil	mg/kg	0.0022	0.0058	--	0/2	1,300	--	16,000	--
Perfluorobutanoic acid	375-22-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Subsurface Soil	mg/kg	0.00071	0.00071	--	0/2	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Subsurface Soil	mg/kg	0.00071	0.045	--	0/2	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Subsurface Soil	mg/kg	0.00027	0.00027	--	0/2	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	4.1	--	27	--
Aroclor 1221	11104-28-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.2	--	0.83	--
Aroclor 1232	11141-16-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.17	--	0.72	--
Aroclor 1242	53469-21-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.23	--	0.95	--
Aroclor 1248	12672-29-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.23	--	0.94	--
Aroclor 1254	11097-69-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.24	--	0.97	--
Aroclor 1260	11096-82-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.24	--	0.99	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Regional Screening Levels [1] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	520	--	2,200	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	2,400	--	30,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	97	--	560	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways (November 2019) https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.

3.. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.

4. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (No screening value).

CASRN = Chemical Abstracts Service Registry Number.

mg/kg = Milligram per kilogram.

ND = Not detected.

NS = No screening value.

-- = Not applicable.

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance[3]	Industrial	Industrial Exceedance[3]
Metals (ILM05.3/ISM02.4)											
Aluminum	7429-90-5	Subsurface Soil	mg/kg	1,960	18,800	MW-2-14.0-16.0_05/14/2019, DSB-4-13.0-15.0_05/14/2019	44/44	65,000	--	620,000	--
Antimony	7440-36-0	Subsurface Soil	mg/kg	ND	ND	--	0/44	15	--	310	--
Arsenic	7440-38-2	Subsurface Soil	mg/kg	2.4	22.1	DSB-5-9.0-11.0_05/14/2019	40/44	24	--	200	--
Barium	7440-39-3	Subsurface Soil	mg/kg	25.8	794	DSB-9-2.0-5.0_05/13/2019	44/44	8,100	--	120,000	--
Beryllium	7440-41-7	Subsurface Soil	mg/kg	0.53	1	JSB-9-2.0-5.0_01/14/2020	18/44	38	--	250	--
Cadmium	7440-43-9	Subsurface Soil	mg/kg	0.087	2.3	DSB-7-2.0-5.0_05/15/2019	16/44	52	--	810	--
Calcium	7440-70-2	Subsurface Soil	mg/kg	68,100	374,000	DSB-2-9.0-11.0_05/13/2019	44/44	NS	--	NS	--
Chromium (Trivalent)	7440-47-3	Subsurface Soil	mg/kg	4.1	274	DSB-7-2.0-5.0_05/15/2019	44/44	33,000	---	120,000	---
Cobalt	7440-48-4	Subsurface Soil	mg/kg	2.4	22.4	JSB-7-10.0-15.0_01/13/2020	44/44	680	--	6,300	--
Copper	7440-50-8	Subsurface Soil	mg/kg	2.9	82.6	JSB-8-2.0-5.0_01/13/2020	44/44	1,300	--	94,000	--
Iron	7439-89-6	Subsurface Soil	mg/kg	3,900	27,800	DSB-6-13.0-15.0_05/14/2019	44/44	NS	--	NS	--
Lead	7439-92-1	Subsurface Soil	mg/kg	4.3	81.8	DSB-7-2.0-5.0_05/15/2019	44/44	500	--	1,600	--
Magnesium	7439-95-4	Subsurface Soil	mg/kg	1,230	3,400	MW-2-14.0-16.0_05/14/2019	44/44	NS	--	NS	--
Manganese	7439-96-5	Subsurface Soil	mg/kg	283	1,640	MW-2-14.0-16.0_05/14/2019	44/44	3,900	--	73,000	--
Mercury	7439-97-6	Subsurface Soil	mg/kg	0.004	1.1	DSB-7-2.0-5.0_05/15/2019	23/44	3.6	--	6.2	--
Nickel	7440-02-0	Subsurface Soil	mg/kg	8.5	254	DSB-7-2.0-5.0_05/15/2019	44/44	840	--	8,800	--
Potassium	7440-09-7	Subsurface Soil	mg/kg	218	2,070	MW-2-14.0-16.0_05/14/2019	43/44	NS	--	NS	--
Selenium	7782-49-2	Subsurface Soil	mg/kg	0.32	0.68	MW-7-2.0-5.0_01/14/2020	20/44	310	--	4,900	--
Silver	7440-22-4	Subsurface Soil	mg/kg	0.017	0.06	JSB-9-2.0-5.0_01/14/2020	3/44	97	--	2,300	--
Sodium	7440-23-5	Subsurface Soil	mg/kg	38.3	250	DSB-3-8.0-10.0_05/15/2019	26/44	NS	--	NS	--
Thallium	7440-28-0	Subsurface Soil	mg/kg	0.015	0.13	MW-2-14.0-16.0_05/14/2019	7/44	5.3	--	65	--
Vanadium	7440-62-2	Subsurface Soil	mg/kg	0.31	53.3	DSB-6-13.0-15.0_05/14/2019	44/44	76	--	620	--
Zinc	7440-66-6	Subsurface Soil	mg/kg	14.6	68.1	DSB-7-2.0-5.0_05/15/2019	44/44	9,900	--	250,000	--
Hexavalent Chromium (SW7199)											
Chromium, hexavalent	18540-29-9	Subsurface Soil	mg/kg	0.17	25.4	DSB-7-2.0-5.0_05/15/2019	36/44	120	--	1,000	--
Cyanide (ISM02.4)											
Cyanide	57-12-5	Subsurface Soil	mg/kg	0.15	0.22	DSB-2-2.0-5.0_05/13/2019	2/18	45	--	370	--
Volatile Organic Compounds (OLM04.2)											
1,1,1-Trichloroethane	71-55-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	53,000	--	100,000	--
1,1,2,2-tetrachloroethane	79-34-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	30	--	140	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	74,000	--	110,000	--
1,1,2-Trichloroethane	79-00-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	18	--	35	--
1,1-Dichloroethane	75-34-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	11,000	--	41,000	--
1,1-Dichloroethene	75-35-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,300	--	6,400	--
1,2-Dibromo-3-chloropropane	96-12-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.15	--	0.26	--
1,2-Dibromoethane	106-93-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.5	--	8.7	--
1,2-Dichloroethane	107-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	41	--	110	--
1,2-Dichloropropane	78-87-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	61	--	86	--
2-Butanone	78-93-3	Subsurface Soil	mg/kg	0.0064	0.0064	MW-3-9.0-11.0_05/15/2019	1/1	40,000	--	190,000	--
2-Hexanone	591-78-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	270	--	940	--
4-Methyl-2-pentanone	108-10-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	5,900	--	41,000	--
Acetone	67-64-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	66,000	--	440,000	--
Benzene	71-43-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	120	--	240	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Bromodichloromethane	75-27-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	98	--	460	--
Bromoform	75-25-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	400	--	1,000	--
Bromomethane	74-83-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	46	--	100	--
Carbon disulfide	75-15-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,600	--	13,000	--
Carbon tetrachloride	56-23-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	35	--	81	--
Chlorobenzene	108-90-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	520	--	1,000	--
Chloroethane	75-00-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	27,000	--	140,000	--
Chloroform	67-66-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	16	--	26	--
Chloromethane	74-87-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	140	--	290	--
cis-1,2-dichloroethene	156-59-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	140	--	790	--
cis-1,3-dichloropropene	10061-01-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	8	--	53	--
Cyclohexane	110-82-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	75,000	--	130,000	--
Dibromochloromethane	124-48-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	72	--	340	--
Dichlorodifluoromethane	75-71-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,400	--	2,100	--
Ethylbenzene	100-41-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,400	--	29,000	--
Isopropylbenzene	98-82-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,300	--	11,000	--
m,p-Xylene	179601-23-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	8,900	--	13,000	--
Methyl acetate	79-20-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	82,000	--	1,000,000	--
Methyl tert-butyl ether	1634-04-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	800	--	2,000	--
Methylcyclohexane	108-87-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	41,000	--	64,000	--
Methylene Chloride	75-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,600	--	12,000	--
o-Xylene	95-47-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	48,000	--	91,000	--
Styrene	100-42-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--	15,000	--
Tetrachloroethene	127-18-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	710	--	1,400	--
Toluene	108-88-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	5,900	--	42,000	--
trans-1,2-dichloroethene	156-60-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	590	--	1,200	--
trans-1,3-dichloropropene	10061-02-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	36	--	99	--
Trichloroethene	79-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	18	--	40	--
Trichlorofluoromethane	75-69-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	25,000	--	310,000	--
Vinyl chloride	75-01-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	3.7	--	15	--
Semivolatile Organic Compounds (OLM04.2)											
1,1'-Biphenyl	92-52-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	12,000	--	85,000	--
1,2,4-Trichlorobenzene	120-82-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	120	--	200	--
1,2-Dichlorobenzene	95-50-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	720	--	1,100	--
1,3-Dichlorobenzene	541-73-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	120	--	170	--
1,4-Dichlorobenzene	106-46-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	250	--	1,200	--
1-Methylnaphthalene	90-12-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	150	--	600	--
2,2-oxybis(1-chloropropane)	108-60-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	51	--	150	--
2,4,5-Trichlorophenol	95-95-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--	68,000	--
2,4,6-Trichlorophenol	88-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	67	--	680	--
2,4-Dichlorophenol	120-83-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	200	--	2,000	--
2,4-Dimethylphenol	105-67-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,300	--	14,000	--
2,4-Dinitrophenol	51-28-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--	1,400	--
2,4-Dinitrotoluene	121-14-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6.9	--	28	--
2,6-Dinitrotoluene	606-20-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6.9	--	28	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
2-Chloronaphthalene	91-58-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	5,000	--	50,000	--
2-Chlorophenol	95-57-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	410	--	5,100	--
2-Methylnaphthalene	91-57-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	250	--	2,500	--
2-Methylphenol	95-48-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,300	--	34,000	--
2-Nitroaniline	88-74-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	14	--	50	--
2-Nitrophenol	88-75-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--	1,400	--
3&4-methylphenol	34MP	Subsurface Soil	mg/kg	ND	ND	--	0/1	330	--	3,400	--
3,3'-Dichlorobenzidine	91-94-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	10	--	42	--
3-Nitroaniline	99-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	15	--	59	--
4,6-Dinitro-2-methylphenol	534-52-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	6.7	--	68	--
4-Bromophenyl phenyl ether	101-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.28	--	1.2	--
4-chloro-3-methylphenol	59-50-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	330	--	3,400	--
4-Chloroaniline	106-47-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	23	--	95	--
4-Chlorophenyl phenyl ether	7005-72-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.16	--	0.98	--
4-Nitroaniline	100-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	220	--	950	--
4-Nitrophenol	100-02-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--	1,400	--
Acenaphthene	83-32-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,000	--	37,000	--
Acenaphthylene	208-96-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,800	--	37,000	--
Acetophenone	98-86-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--	68,000	--
Anthracene	120-12-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	18,000	--	190,000	--
Atrazine	1912-24-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	21	--	86	--
Benzaldehyde	100-52-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	8,200	--	100,000	--
Benzo[a]anthracene	56-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	41	--	170	--
Benzo[a]pyrene	50-32-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	4.1	--	17	--
Benzo[b]fluoranthene	205-99-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	42	--	170	--
Benzo[g,h,i]perylene	191-24-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--	19,000	--
Benzo[k]fluoranthene	207-08-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	420	--	1,700	--
Benzyl alcohol	100-51-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--	68,000	--
Benzyl butyl phthalate	85-68-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,600	--	10,000	--
Bis(2-chloroethoxy) methane	111-91-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	3.1	--	9.1	--
Bis(2-chloroethyl) ether	111-44-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.2	--	4.9	--
Bis(2-ethylhexyl) phthalate	117-81-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	43	--	560	--
Caprolactam	105-60-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	33,000	--	340,000	--
Carbazole	86-74-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	230	--	950	--
Chrysene	218-01-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,100	--	17,000	--
Dibenz[a,h]anthracene	53-70-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	4	--	17	--
Dibenzofuran	132-64-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	270	--	2,700	--
Diethyl phthalate	84-66-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	53,000	--	550,000	--
Dimethyl phthalate	131-11-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	53,000	--	550,000	--
di-n-Butyl phthalate	84-74-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,200	--	68,000	--
Di-n-octyl phthalate	117-84-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	640	--	6,800	--
Fluoranthene	206-44-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,300	--	25,000	--
Fluorene	86-73-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,300	--	25,000	--
Hexachlorobenzene	118-74-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--	8.7	--
Hexachlorobutadiene	87-68-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	20	--	41	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance[3]	Industrial	Industrial Exceedance[3]
Hexachlorocyclopentadiene	77-47-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	14	--	20	--
Hexachloroethane	67-72-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	46	--	450	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	42	--	170	--
Isophorone	78-59-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,900	--	20,000	--
Naphthalene	91-20-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	220	--	360	--
Nitrobenzene	98-95-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	66	--	110	--
n-Nitrosodi-n-propylamine	621-64-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.4	--	1.4	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Pentachlorophenol	87-86-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.73	--	32	--
Phenanthrene	85-01-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,700	--	19,000	--
Phenol	108-95-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--	2,700	--
Pyrene	129-00-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,700	--	19,000	--
PFAS (E537.0M)											
Perfluorobutanesulfonic acid	375-73-5	Subsurface Soil	mg/kg	0.0022	0.0058	--	0/2	86	--	600	--
Perfluorobutanoic acid	375-22-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	180	--	1,100	--
Perfluorodecanesulfonic acid	335-77-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.8	--	8.2	--
Perfluorodecanoic acid	335-76-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.99	--	9.4	--
Perfluorododecanoic acid	307-55-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.79	--	7.5	--
Perfluoroheptanoic acid	375-85-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.5	--	16	--
Perfluorohexanesulfonic acid	355-46-4	Subsurface Soil	mg/kg	0.00071	0.00071	--	0/2	0.25	--	2.2	--
Perfluorohexanoic acid	307-24-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.25	--	2.6	--
Perfluorononanoic acid	375-95-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.76	--	6.1	--
Perfluorooctanesulfonamide	754-91-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.058	--	0.087	--
Perfluorooctanesulfonic acid	1763-23-1	Subsurface Soil	mg/kg	0.00071	0.045	--	0/2	1.5	--	15	--
Perfluorooctanoic acid	335-67-1	Subsurface Soil	mg/kg	0.00027	0.00027	--	0/2	0.6	--	2.4	--
Perfluoropentanoic acid	2706-90-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.25	--	2.6	--
Perfluorotetradecanoic acid	376-06-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.51	--	8.2	--
Perfluorotridecanoic acid	72629-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.61	--	8.2	--
Perfluoroundecanoic acid	2058-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.8	--	8.2	--
PCB Aroclors (OLM04.2)											
Aroclor 1016	12674-11-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1221	11104-28-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1232	11141-16-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1242	53469-21-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1248	12672-29-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1254	11097-69-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
Aroclor 1260	11096-82-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Tier 1 PCLs - 0.5 Acre Source [2] Residential	Residential Exceedance [3]	Industrial	Industrial Exceedance [3]
Total Petroleum Hydrocarbons (TX1005)											
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	12,000	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--	12,000	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	1,600	--	3,900	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways (November 2019) https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.

3.. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are

4. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (No screening value).

CASRN = Chemical Abstracts Service Registry Number.

mg/kg = Milligram per kilogram.

ND = Not detected.

NS = No screening value.

-- = Not applicable.

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Metals (ILM05.3/ISM02.4)									
Aluminum	7429-90-5	Subsurface Soil	mg/kg	1,960	18,800	MW-2-14.0-16.0_05/14/2019, DSB-4-13.0-15.0_05/14/2019	44/44	65,000	--
Antimony	7440-36-0	Subsurface Soil	mg/kg	ND	ND	--	0/44	15	--
Arsenic	7440-38-2	Subsurface Soil	mg/kg	2.4	22.1	DSB-5-9.0-11.0_05/14/2019	40/44	0.68	3.25E+01
Barium	7440-39-3	Subsurface Soil	mg/kg	25.8	794	DSB-9-2.0-5.0_05/13/2019	44/44	8,100	--
Beryllium	7440-41-7	Subsurface Soil	mg/kg	0.53	1	JSB-9-2.0-5.0_01/14/2020	18/44	38	--
Cadmium	7440-43-9	Subsurface Soil	mg/kg	0.087	2.3	DSB-7-2.0-5.0_05/15/2019	16/44	52	--
Calcium	7440-70-2	Subsurface Soil	mg/kg	68,100	374,000	DSB-2-9.0-11.0_05/13/2019	44/44	NS	--
Chromium (Trivalent)	7440-47-3	Subsurface Soil	mg/kg	4.1	274	DSB-7-2.0-5.0_05/15/2019	44/44	12,000	--
Cobalt	7440-48-4	Subsurface Soil	mg/kg	2.4	22.4	JSB-7-10.0-15.0_01/13/2020	44/44	23	--
Copper	7440-50-8	Subsurface Soil	mg/kg	2.9	82.6	JSB-8-2.0-5.0_01/13/2020	44/44	1,300	--
Iron	7439-89-6	Subsurface Soil	mg/kg	3,900	27,800	DSB-6-13.0-15.0_05/14/2019	44/44	55,000	--
Lead	7439-92-1	Subsurface Soil	mg/kg	4.3	81.8	DSB-7-2.0-5.0_05/15/2019	44/44	400	--
Magnesium	7439-95-4	Subsurface Soil	mg/kg	1,230	3,400	MW-2-14.0-16.0_05/14/2019	44/44	NS	--
Manganese	7439-96-5	Subsurface Soil	mg/kg	283	1,640	MW-2-14.0-16.0_05/14/2019	44/44	1,800	--
Mercury	7439-97-6	Subsurface Soil	mg/kg	0.004	1.1	DSB-7-2.0-5.0_05/15/2019	23/44	3.6	--
Nickel	7440-02-0	Subsurface Soil	mg/kg	8.5	254	DSB-7-2.0-5.0_05/15/2019	44/44	840	--
Potassium	7440-09-7	Subsurface Soil	mg/kg	218	2,070	MW-2-14.0-16.0_05/14/2019	43/44	NS	--
Selenium	7782-49-2	Subsurface Soil	mg/kg	0.32	0.68	MW-7-2.0-5.0_01/14/2020	20/44	310	--
Silver	7440-22-4	Subsurface Soil	mg/kg	0.017	0.06	JSB-9-2.0-5.0_01/14/2020	3/44	97	--
Sodium	7440-23-5	Subsurface Soil	mg/kg	38.3	250	DSB-3-8.0-10.0_05/15/2019	26/44	NS	--
Thallium	7440-28-0	Subsurface Soil	mg/kg	0.015	0.13	MW-2-14.0-16.0_05/14/2019	7/44	0.78	--
Vanadium	7440-62-2	Subsurface Soil	mg/kg	0.31	53.3	DSB-6-13.0-15.0_05/14/2019	44/44	76	--
Zinc	7440-66-6	Subsurface Soil	mg/kg	14.6	68.1	DSB-7-2.0-5.0_05/15/2019	44/44	9,900	--
Hexavalent Chromium (SW7199)									
Chromium, hexavalent	18540-29-9	Subsurface Soil	mg/kg	0.17	25.4	DSB-7-2.0-5.0_05/15/2019	36/44	0.3	8.47E+01
Cyanide (ISM02.4)									
Cyanide	57-12-5	Subsurface Soil	mg/kg	0.15	0.22	DSB-2-2.0-5.0_05/13/2019	2/18	23	--
Volatile Organic Compounds (OLM04.2)									
1,1,1-Trichloroethane	71-55-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	8,100	--
1,1,2,2-tetrachloroethane	79-34-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.6	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--
1,1,2-Trichloroethane	79-00-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--
1,1-Dichloroethane	75-34-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	3.6	--
1,1-Dichloroethene	75-35-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	230	--
1,2-Dibromo-3-chloropropane	96-12-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.0053	--
1,2-Dibromoethane	106-93-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.036	--
1,2-Dichloroethane	107-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.46	--
1,2-Dichloropropane	78-87-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.5	--
2-Butanone	78-93-3	Subsurface Soil	mg/kg	0.0064	0.0064	MW-3-9.0-11.0_05/15/2019	1/1	27,000	--
2-Hexanone	591-78-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	200	--
4-Methyl-2-pentanone	108-10-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	5,900	--
Acetone	67-64-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	61,000	--
Benzene	71-43-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.2	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Bromodichloromethane	75-27-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.29	--
Bromoform	75-25-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	19	--
Bromomethane	74-83-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	6.8	--
Carbon disulfide	75-15-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	770	--
Carbon tetrachloride	56-23-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.65	--
Chlorobenzene	108-90-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	280	--
Chloroethane	75-00-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	14,000	--
Chloroform	67-66-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.32	--
Chloromethane	74-87-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	110	--
cis-1,2-dichloroethene	156-59-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	140	--
cis-1,3-dichloropropene	10061-01-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--
Cyclohexane	110-82-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,500	--
Dibromochloromethane	124-48-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	8.3	--
Dichlorodifluoromethane	75-71-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	87	--
Ethylbenzene	100-41-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	5.8	--
Isopropylbenzene	98-82-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,900	--
m,p-Xylene	179601-23-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	580	--
Methyl acetate	79-20-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	78,000	--
Methyl tert-butyl ether	1634-04-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	47	--
Methylcyclohexane	108-87-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,500	--
Methylene Chloride	75-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	57	--
o-Xylene	95-47-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	650	--
Styrene	100-42-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,000	--
Tetrachloroethene	127-18-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	24	--
Toluene	108-88-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,900	--
trans-1,2-dichloroethene	156-60-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	590	--
trans-1,3-dichloropropene	10061-02-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--
Trichloroethene	79-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.94	--
Trichlorofluoromethane	75-69-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	23,000	--
Vinyl chloride	75-01-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.059	--
Semivolatile Organic Compounds (OLM04.2)									
1,1'-Biphenyl	92-52-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	47	--
1,2,4-Trichlorobenzene	120-82-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	24	--
1,2-Dichlorobenzene	95-50-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	720	--
1,3-Dichlorobenzene	541-73-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	120	--
1,4-Dichlorobenzene	106-46-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.6	--
1-Methylnaphthalene	90-12-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	18	--
2,2-oxybis(1-chloropropane)	108-60-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	51	--
2,4,5-Trichlorophenol	95-95-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,300	--
2,4,6-Trichlorophenol	88-06-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	49	--
2,4-Dichlorophenol	120-83-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	190	--
2,4-Dimethylphenol	105-67-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,300	--
2,4-Dinitrophenol	51-28-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--
2,4-Dinitrotoluene	121-14-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.7	--
2,6-Dinitrotoluene	606-20-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.36	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
2-Chloronaphthalene	91-58-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	4,800	--
2-Chlorophenol	95-57-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	390	--
2-Methylnaphthalene	91-57-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	240	--
2-Methylphenol	95-48-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,200	--
2-Nitroaniline	88-74-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	14	--
2-Nitrophenol	88-75-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--
3&4-methylphenol	34MP	Subsurface Soil	mg/kg	ND	ND	--	0/1	330	--
3,3'-Dichlorobenzidine	91-94-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.2	--
3-Nitroaniline	99-09-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	15	--
4,6-Dinitro-2-methylphenol	534-52-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	5.1	--
4-Bromophenyl phenyl ether	101-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.28	--
4-chloro-3-methylphenol	59-50-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	330	--
4-Chloroaniline	106-47-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.7	--
4-Chlorophenyl phenyl ether	7005-72-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.16	--
4-Nitroaniline	100-01-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	27	--
4-Nitrophenol	100-02-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	130	--
Acenaphthene	83-32-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,000	--
Acenaphthylene	208-96-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	3,600	--
Acetophenone	98-86-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,700	--
Anthracene	120-12-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	18,000	--
Atrazine	1912-24-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	2.4	--
Benzaldehyde	100-52-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	170	--
Benzo[a]anthracene	56-55-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--
Benzo[a]pyrene	50-32-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.11	--
Benzo[b]fluoranthene	205-99-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--
Benzo[g,h,i]perylene	191-24-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--
Benzo[k]fluoranthene	207-08-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	11	--
Benzyl alcohol	100-51-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,300	--
Benzyl butyl phthalate	85-68-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	290	--
Bis(2-chloroethoxy) methane	111-91-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	3.1	--
Bis(2-chloroethyl) ether	111-44-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.23	--
Bis(2-ethylhexyl) phthalate	117-81-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	39	--
Caprolactam	105-60-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	31,000	--
Carbazole	86-74-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	230	--
Chrysene	218-01-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	110	--
Dibenz[a,h]anthracene	53-70-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.11	--
Dibenzofuran	132-64-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	78	--
Diethyl phthalate	84-66-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	51,000	--
Dimethyl phthalate	131-11-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	53,000	--
di-n-Butyl phthalate	84-74-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	6,200	--
Di-n-octyl phthalate	117-84-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	630	--
Fluoranthene	206-44-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,300	--
Fluorene	86-73-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	2,300	--
Hexachlorobenzene	118-74-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.21	--
Hexachlorobutadiene	87-68-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.2	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Hexachlorocyclopentadiene	77-47-4	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--
Hexachloroethane	67-72-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.8	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	1.1	--
Isophorone	78-59-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	570	--
Naphthalene	91-20-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	2	--
Nitrobenzene	98-95-3	Subsurface Soil	mg/kg	ND	ND	--	0/1	5.1	--
n-Nitrosodi-n-propylamine	621-64-7	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.078	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Subsurface Soil	mg/kg	ND	ND	--	0/1	NS	--
Pentachlorophenol	87-86-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.73	--
Phenanthrene	85-01-8	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,700	--
Phenol	108-95-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,800	--
Pyrene	129-00-0	Subsurface Soil	mg/kg	ND	ND	--	0/1	1,700	--
PFAS (E537.0M)									
Perfluorobutanesulfonic acid	375-73-5	Subsurface Soil	mg/kg	0.0022	0.0058	--	0/2	86	--
Perfluorobutanoic acid	375-22-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	180	--
Perfluorodecanesulfonic acid	335-77-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.8	--
Perfluorodecanoic acid	335-76-2	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.99	--
Perfluorododecanoic acid	307-55-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.79	--
Perfluoroheptanoic acid	375-85-9	Subsurface Soil	mg/kg	ND	ND	--	0/2	1.5	--
Perfluorohexanesulfonic acid	355-46-4	Subsurface Soil	mg/kg	0.00071	0.00071	--	0/2	0.25	--
Perfluorohexanoic acid	307-24-4	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.25	--
Perfluorononanoic acid	375-95-1	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.76	--
Perfluorooctanesulfonamide	754-91-6	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.058	--
Perfluorooctanesulfonic acid	1763-23-1	Subsurface Soil	mg/kg	0.00071	0.045	--	0/2	1.5	--
Perfluorooctanoic acid	335-67-1	Subsurface Soil	mg/kg	0.00027	0.00027	--	0/2	0.6	--
Perfluoropentanoic acid	2706-90-3	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.25	--
Perfluorotetradecanoic acid	376-06-7	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.51	--
Perfluorotridecanoic acid	72629-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.61	--
Perfluoroundecanoic acid	2058-94-8	Subsurface Soil	mg/kg	ND	ND	--	0/2	0.8	--
PCB Aroclors (OLM04.2)									
Aroclor 1016	12674-11-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	4.1	--
Aroclor 1221	11104-28-2	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.2	--
Aroclor 1232	11141-16-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.17	--
Aroclor 1242	53469-21-9	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.23	--
Aroclor 1248	12672-29-6	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.23	--
Aroclor 1254	11097-69-1	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.24	--
Aroclor 1260	11096-82-5	Subsurface Soil	mg/kg	ND	ND	--	0/1	0.24	--

Table 5-9 Open Area Screening Level Exceedances for Subsurface Soil

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Project Screening Level [4]	Project Screening Level Exceedance [3]
Total Petroleum Hydrocarbons (TX1005)									
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/1	520	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/1	2,300	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/1	97	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/1	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential and industrial use scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (III) for Chromium, Mercuric Chloride for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. Texas Risk Reduction Program (TRRP) Protection Concentration Levels (PCL)s for soil which includes inhalation, ingestion, dermal, and vegetable consumption for residential and industrial pathways (November 2019) https://www.tceq.texas.gov/remediation/trrp/trrppcls.html.

3.. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are

4. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (No screening value).

CASRN = Chemical Abstracts Service Registry Number.

mg/kg = Milligram per kilogram.

ND = Not detected.

NS = No screening value.

-- = Not applicable.

Table 5-10 Summary of Subsurface Hexavalent Chromium Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	BSB-01	BSB-1-2.0-5.0	1/20/2020	2	5	ft	0.17	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-01	BSB-1-5.0-10.0	1/20/2020	5	10	ft	0.37	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Background	BSB-01	BSB-1-13.0-15.0	1/20/2020	13	15	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-02	BSB-2-2.0-5.0	1/21/2020	2	5	ft	0.43	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Background	BSB-02	BSB-2-5.0-10.0	1/21/2020	5	10	ft	0.29	mg/kg	J	0.3	--	6.3	--	1.435	--
Background	BSB-02	BSB-2-13.0-15.0	1/21/2020	13	15	ft	0.28	mg/kg	J	0.3	--	6.3	--	1.435	--
Background	BSB-03	BSB-3-2.0-5.0	1/20/2020	2	5	ft	0.59	mg/kg		0.3	Yes	6.3	--	1.435	--
Background	BSB-03	BSB-3-5.0-10.0	1/20/2020	5	10	ft	0.17	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-03	BSB-3-13.0-15.0	1/20/2020	13	15	ft	0.34	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Background	BSB-04	BSB-4-2.0-5.0	1/21/2020	2	5	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-04	BSB-4-5.0-10.0	1/21/2020	5	10	ft	0.17	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-04	BSB-4-13.0-15.0	1/21/2020	13	15	ft	0.17	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-05	BSB-5-2.0-5.0-D	1/21/2020	2	5	ft	0.82	mg/kg		0.3	Yes	6.3	--	1.435	--
Background	BSB-05	BSB-5-2.0-5.0	1/21/2020	2	5	ft	0.19	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-05	BSB-5-5.0-10.0	1/21/2020	5	10	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-05	BSB-5-13.0-15.0	1/21/2020	13	15	ft	0.56	mg/kg		0.3	Yes	6.3	--	1.435	--
Background	BSB-06	BSB-6-2.0-5.0	1/20/2020	2	5	ft	0.19	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-06	BSB-6-5.0-10.0	1/20/2020	5	10	ft	1.6	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Background	BSB-06	BSB-6-13.0-15.0-D	1/20/2020	13	15	ft	0.17	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-06	BSB-6-13.0-15.0	1/20/2020	13	15	ft	0.3	mg/kg	J	0.3	--	6.3	--	1.435	--
Background	BSB-07	BSB-7-2.0-5.0	1/21/2020	2	5	ft	0.34	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Background	BSB-07	BSB-7-5.0-10.0	1/21/2020	5	10	ft	0.25	mg/kg	J	0.3	--	6.3	--	1.435	--
Background	BSB-07	BSB-7-13.0-15.0	1/21/2020	13	15	ft	2.3	mg/kg	J	0.3	Yes	6.3	--	1.435	Yes
Background	BSB-08	BSB-8-2.0-5.0	1/21/2020	2	5	ft	0.23	mg/kg	J	0.3	--	6.3	--	1.435	--
Background	BSB-08	BSB-8-5.0-10.0	1/21/2020	5	10	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Background	BSB-08	BSB-8-13.0-15.0	1/21/2020	13	15	ft	0.25	mg/kg	J	0.3	--	6.3	--	1.435	--
Process Area	ACMW-01	ACMW-1-2.0-5.0	1/15/2020	2	5	ft	7.6	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	ACMW-01	ACMW-1-5.0-10.0	1/15/2020	5	10	ft	6.6	mg/kg	J	0.3	Yes	6.3	Yes	1.435	Yes
Process Area	ACMW-01	ACMW-1-10.0-12.0	1/15/2020	10	12	ft	4.4	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	ACMW-01	ACMW-1-28.0-30.0	1/22/2020	28	30	ft	0.4	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Process Area	ACMW-02	ACMW-2-2.0-5.0	1/15/2020	2	5	ft	82.2	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	ACMW-02	ACMW-2-5.0-10.0	1/15/2020	5	10	ft	29.6	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	ACMW-02	ACMW-2-10.0-12.0	1/15/2020	10	12	ft	3.3	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	ACMW-02	ACMW-2-28.0-30.0-D	1/22/2020	28	30	ft	0.24	mg/kg	J	0.3	--	6.3	--	1.435	--
Process Area	ACMW-02	ACMW-2-28.0-30.0	1/22/2020	28	30	ft	0.59	mg/kg	J	0.3	Yes	6.3	--	1.435	--

Table 5-10 Summary of Subsurface Hexavalent Chromium Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	ACMW-04	ACMW-4-2.0-5.0	1/15/2020	2	5	ft	0.24	mg/kg	J	0.3	--	6.3	--	1.435	--
Process Area	ACMW-04	ACMW-4-5.0-10.0-D	1/15/2020	5	10	ft	2	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	ACMW-04	ACMW-4-5.0-10.0	1/15/2020	5	10	ft	0.37	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Process Area	ACMW-04	ACMW-4-13.0-15.0	1/15/2020	13	15	ft	2.9	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	ACMW-04	ACMW-4-28.0-30.0	1/22/2020	28	30	ft	1.8	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	DSB-08	DSB-8-2.0-5.0	5/16/2019	2	5	ft	9.8	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	DSB-08	DSB-8-8.0-10.0-D	5/16/2019	8	10	ft	4.4	mg/kg	J	0.3	Yes	6.3	--	1.435	Yes
Process Area	DSB-08	DSB-8-8.0-10.0	5/16/2019	8	10	ft	10.9	mg/kg	J	0.3	Yes	6.3	Yes	1.435	Yes
Process Area	JSB-02	JSB-2-2.0-5.0	5/16/2019	2	5	ft	53.5	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	JSB-02	JSB-2-8.0-10.0-D	5/16/2019	8	10	ft	4.3	mg/kg	J	0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-02	JSB-2-8.0-10.0	5/16/2019	8	10	ft	10.8	mg/kg	J	0.3	Yes	6.3	Yes	1.435	Yes
Process Area	JSB-04	JSB-4-2.0-5.0	5/13/2019	2	5	ft	1.5	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-04	JSB-4-13.0-15.0	5/13/2019	13	15	ft	0.94	mg/kg		0.3	Yes	6.3	--	1.435	--
Process Area	JSB-06	JSB-6-2.0-5.0	1/16/2020	2	5	ft	0.69	mg/kg		0.3	Yes	6.3	--	1.435	--
Process Area	JSB-06	JSB-6-5.0-10.0	1/16/2020	5	10	ft	0.42	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Process Area	JSB-06	JSB-6-13.0-15.0	1/16/2020	13	15	ft	3.8	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-10	JSB-10-2.0-5.0	1/14/2020	2	5	ft	7.9	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	JSB-10	JSB-10-5.0-10.0	1/14/2020	5	10	ft	4.6	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-10	JSB-10-11.0-13.0	1/14/2020	11	13	ft	5	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-11	JSB-11-2.0-5.0	1/15/2020	2	5	ft	0.73	mg/kg		0.3	Yes	6.3	--	1.435	--
Process Area	JSB-11	JSB-11-5.0-10.0-D	1/15/2020	5	10	ft	5.1	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-11	JSB-11-5.0-10.0	1/15/2020	5	10	ft	5.4	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	JSB-11	JSB-11-11.0-13.0	1/15/2020	11	13	ft	4.9	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	MW-01	MW-1-6.0-8.0	5/16/2019	6	8	ft	4	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	MW-09	MW-9-10.0-12.0	1/15/2020	10	12	ft	4.7	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Process Area	MW-09	MW-9-2.0-5.0	1/15/2020	2	5	ft	37.8	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Process Area	MW-09	MW-9-5.0-10.0	1/15/2020	5	10	ft	4.4	mg/kg	J	0.3	Yes	6.3	--	1.435	Yes
Process Area	MW-10	MW-10-2.0-5.0	1/16/2020	2	5	ft	0.5	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Process Area	MW-10	MW-10-5.0-10.0	1/16/2020	5	10	ft	13.4	mg/kg	J	0.3	Yes	6.3	Yes	1.435	Yes
Process Area	MW-10	MW-10-16.0-18.0-D	1/16/2020	16	18	ft	5.6	mg/kg	J	0.3	Yes	6.3	--	1.435	Yes
Process Area	MW-10	MW-10-16.0-18.0	1/16/2020	16	18	ft	1.4	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Open Area	ACMW-03	ACMW-3-2.0-5.0	1/15/2020	2	5	ft	0.22	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	ACMW-03	ACMW-3-5.0-6.0	1/15/2020	5	6	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Open Area	ACMW-03	ACMW-3-18.0-20.0	1/21/2020	18	20	ft	0.34	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Open Area	DSB-01	DSB-1-9.0-11.0	5/13/2019	9	11	ft	1.5	mg/kg		0.3	Yes	6.3	--	1.435	Yes

Table 5-10 Summary of Subsurface Hexavalent Chromium Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	DSB-02	DSB-2-2.0-5.0	5/13/2019	2	5	ft	9.8	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Open Area	DSB-02	DSB-2-9.0-11.0	5/13/2019	9	11	ft	1.2	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	DSB-03	DSB-3-8.0-10.0	5/15/2019	8	10	ft	1.2	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	DSB-04	DSB-4-13.0-15.0	5/14/2019	13	15	ft	0.23	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	DSB-05	DSB-5-2.0-5.0	5/14/2019	2	5	ft	24.6	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Open Area	DSB-05	DSB-5-9.0-11.0	5/14/2019	9	11	ft	3.7	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Open Area	DSB-06	DSB-6-13.0-15.0	5/14/2019	13	15	ft	0.21	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	DSB-07	DSB-7-2.0-5.0	5/15/2019	2	5	ft	25.4	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Open Area	DSB-07	DSB-7-9.0-11.0	5/15/2019	9	11	ft	14.5	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Open Area	DSB-09	DSB-9-2.0-5.0	5/13/2019	2	5	ft	1.2	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	DSB-09	DSB-9-10.0-12.0	5/13/2019	10	12	ft	3.3	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Open Area	JSB-01	JSB-1-2.0-5.0	5/13/2019	2	5	ft	15.4	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Open Area	JSB-01	JSB-1-9.0-11.0	5/13/2019	9	11	ft	7.6	mg/kg		0.3	Yes	6.3	Yes	1.435	Yes
Open Area	JSB-03	JSB-3-2.0-5.0	5/13/2019	2	5	ft	0.49	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Open Area	JSB-03	JSB-3-11.0-13.0	5/13/2019	11	13	ft	0.17	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	JSB-05	JSB-5-2.0-5.0	1/16/2020	2	5	ft	0.45	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Open Area	JSB-05	JSB-5-5.0-10.0	1/16/2020	5	10	ft	0.62	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	JSB-05	JSB-5-13.0-15.0	1/16/2020	13	15	ft	1.4	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	JSB-07	JSB-7-2.0-5.0	1/13/2020	2	5	ft	0.19	mg/kg	U	0.3	--	6.3	--	1.435	--
Open Area	JSB-07	JSB-7-5.0-10.0	1/13/2020	5	10	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Open Area	JSB-07	JSB-7-10.0-15.0	1/13/2020	10	15	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Open Area	JSB-08	JSB-8-2.0-5.0	1/13/2020	2	5	ft	0.77	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	JSB-08	JSB-8-5.0-10.0-D	1/13/2020	5	10	ft	0.21	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	JSB-08	JSB-8-5.0-10.0	1/13/2020	5	10	ft	0.3	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	JSB-08	JSB-8-10.0-15.0	1/13/2020	10	15	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--
Open Area	JSB-09	JSB-9-2.0-5.0	1/14/2020	2	5	ft	0.96	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	JSB-09	JSB-9-5.0-10.0	1/14/2020	5	10	ft	5.3	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Open Area	JSB-09	JSB-9-12-14-D	1/14/2020	12	14	ft	0.22	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	JSB-09	JSB-9-12-14	1/14/2020	12	14	ft	1.4	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-02	MW-2-14.0-16.0	5/14/2019	14	16	ft	0.17	mg/kg	U	0.3	--	6.3	--	1.435	--
Open Area	MW-03	MW-3-9.0-11.0	5/15/2019	9	11	ft	0.18	mg/kg	U	0.3	--	6.3	--	1.435	--

Table 5-10 Summary of Subsurface Hexavalent Chromium Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	MW-04	MW-4-2.0-5.0	1/13/2020	2	5	ft	1.1	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-04	MW-4-5.0-10.0	1/13/2020	5	10	ft	2.6	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Open Area	MW-04	MW-4-10.0-15.0	1/13/2020	10	15	ft	0.83	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-05	MW-5-2.0-5.0	1/13/2020	2	5	ft	1	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-05	MW-5-5.0-10.0	1/13/2020	5	10	ft	3.3	mg/kg		0.3	Yes	6.3	--	1.435	Yes
Open Area	MW-06	MW-6-2.0-5.0-D	1/14/2020	2	5	ft	0.57	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-06	MW-6-2.0-5.0	1/14/2020	2	5	ft	0.25	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	MW-06	MW-6-5.0-10.0	1/14/2020	5	10	ft	0.29	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	MW-06	MW-6-17.0-19.0	1/14/2020	17	19	ft	1.2	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-07	MW-7-2.0-5.0	1/14/2020	2	5	ft	0.58	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-07	MW-7-5.0-10.0	1/14/2020	5	10	ft	0.96	mg/kg	J	0.3	Yes	6.3	--	1.435	--
Open Area	MW-07	MW-7-12.0-14.0	1/14/2020	12	14	ft	0.2	mg/kg	J	0.3	--	6.3	--	1.435	--
Open Area	MW-08	MW-8-2.0-5.0	1/16/2020	2	5	ft	0.51	mg/kg		0.3	Yes	6.3	--	1.435	--
Open Area	MW-08	MW-8-5.0-6.0	1/16/2020	5	6	ft	0.16	mg/kg	U	0.3	--	6.3	--	1.435	--

Notes
ft = Feet/foot.
mg/kg = Milligram(s) per kilogram
J = Analyte was positively identified, but the associated numerical value is estimated.
U = The analyte was not detected at or above the reporting limit.

Table 5-11 Summary of Subsurface Arsenic Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Background	BSB-01	BSB-1-2.0-5.0	1/20/2020	2	5	ft	3.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-01	BSB-1-5.0-10.0	1/20/2020	5	10	ft	2.9	mg/kg		0.68	Yes	3.0	--	7.779	--
Background	BSB-01	BSB-1-13.0-15.0	1/20/2020	13	15	ft	7.6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-02	BSB-2-2.0-5.0	1/21/2020	2	5	ft	2.6	mg/kg		0.68	Yes	3.0	--	7.779	--
Background	BSB-02	BSB-2-5.0-10.0	1/21/2020	5	10	ft	2.3	mg/kg	U	0.68	--	3.0	--	7.779	--
Background	BSB-02	BSB-2-13.0-15.0	1/21/2020	13	15	ft	4.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-03	BSB-3-2.0-5.0	1/20/2020	2	5	ft	3.3	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-03	BSB-3-5.0-10.0	1/20/2020	5	10	ft	2.3	mg/kg	U	0.68	--	3.0	--	7.779	--
Background	BSB-03	BSB-3-13.0-15.0	1/20/2020	13	15	ft	3.2	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-04	BSB-4-2.0-5.0	1/21/2020	2	5	ft	4.1	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-04	BSB-4-5.0-10.0	1/21/2020	5	10	ft	8.8	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Background	BSB-04	BSB-4-13.0-15.0	1/21/2020	13	15	ft	4.3	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-05	BSB-5-2.0-5.0	1/21/2020	2	5	ft	3.8	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-05	BSB-5-5.0-10.0	1/21/2020	5	10	ft	4	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-05	BSB-5-13.0-15.0	1/21/2020	13	15	ft	6.3	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-06	BSB-6-2.0-5.0	1/20/2020	2	5	ft	4.9	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-06	BSB-6-5.0-10.0	1/20/2020	5	10	ft	3.9	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-06	BSB-6-13.0-15.0-D	1/20/2020	13	15	ft	3.9	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-06	BSB-6-13.0-15.0	1/20/2020	13	15	ft	5.7	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-07	BSB-7-2.0-5.0	1/21/2020	2	5	ft	3.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-07	BSB-7-5.0-10.0	1/21/2020	5	10	ft	2.5	mg/kg		0.68	Yes	3.0	--	7.779	--
Background	BSB-07	BSB-7-13.0-15.0	1/21/2020	13	15	ft	3.8	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Background	BSB-08	BSB-8-2.0-5.0	1/21/2020	2	5	ft	3.7	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-08	BSB-8-5.0-10.0	1/21/2020	5	10	ft	4.4	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Background	BSB-08	BSB-8-13.0-15.0	1/21/2020	13	15	ft	6	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-01	ACMW-1-2.0-5.0	1/15/2020	2	5	ft	6.4	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-01	ACMW-1-5.0-10.0	1/15/2020	5	10	ft	4.4	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-01	ACMW-1-10.0-12.0	1/15/2020	10	12	ft	5.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-01	ACMW-1-28.0-30.0	1/22/2020	28	30	ft	3.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-02	ACMW-2-2.0-5.0	1/15/2020	2	5	ft	7.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-02	ACMW-2-5.0-10.0	1/15/2020	5	10	ft	6.8	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-02	ACMW-2-10.0-12.0	1/15/2020	10	12	ft	4.9	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-02	ACMW-2-28.0-30.0	1/22/2020	28	30	ft	4.3	mg/kg		0.68	Yes	3.0	Yes	7.779	--

Table 5-11 Summary of Subsurface Arsenic Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	ACMW-04	ACMW-4-2.0-5.0	1/15/2020	2	5	ft	2.7	mg/kg	J	0.68	Yes	3.0	--	7.779	--
Process Area	ACMW-04	ACMW-4-5.0-10.0-D	1/15/2020	5	10	ft	5.7	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-04	ACMW-4-5.0-10.0	1/15/2020	5	10	ft	6.6	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Process Area	ACMW-04	ACMW-4-13.0-15.0	1/15/2020	13	15	ft	3.1	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Lane Plating	ACMW-04	ACMW-4-28.0-30.0	1/22/2020	28	30	ft	4.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	DSB-08	DSB-8-2.0-5.0-D	5/16/2019	2	5	ft	6.9	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	DSB-08	DSB-8-2.0-5.0	5/16/2019	2	5	ft	5.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	DSB-08	DSB-8-8.0-10.0	5/16/2019	8	10	ft	9.3	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Process Area	JSB-02	JSB-2-2.0-5.0	5/16/2019	2	5	ft	7.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-02	JSB-2-8.0-10.0	5/16/2019	8	10	ft	5.4	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-04	JSB-4-2.0-5.0	5/13/2019	2	5	ft	6.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-04	JSB-4-13.0-15.0	5/13/2019	13	15	ft	6.8	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-06	JSB-6-2.0-5.0	1/16/2020	2	5	ft	2.3	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Process Area	JSB-06	JSB-6-5.0-10.0	1/16/2020	5	10	ft	2.4	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Process Area	JSB-06	JSB-6-13.0-15.0	1/16/2020	13	15	ft	2.4	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Process Area	JSB-09	JSB-9-2.0-5.0	1/14/2020	2	5	ft	5.9	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-09	JSB-9-5.0-10.0	1/14/2020	5	10	ft	12	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Process Area	JSB-09	JSB-9-12-14-D	1/14/2020	12	14	ft	6.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-09	JSB-9-12-14	1/14/2020	12	14	ft	6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-10	JSB-10-2.0-5.0	1/14/2020	2	5	ft	5.8	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-10	JSB-10-5.0-10.0	1/14/2020	5	10	ft	7.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-10	JSB-10-11.0-13.0	1/14/2020	11	13	ft	7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-11	JSB-11-2.0-5.0	1/15/2020	2	5	ft	8.8	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Process Area	JSB-11	JSB-11-5.0-10.0-D	1/15/2020	5	10	ft	6.2	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-11	JSB-11-5.0-10.0	1/15/2020	5	10	ft	5.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	JSB-11	JSB-11-11.0-13.0	1/15/2020	11	13	ft	6.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	MW-01	MW-1-6.0-8.0	5/16/2019	6	8	ft	11.4	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Process Area	MW-09	MW-9-10.0-12.0	1/15/2020	0.5	2	ft	7.2	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	MW-09	MW-9-2.0-5.0	1/15/2020	2	5	ft	6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Process Area	MW-09	MW-9-5.0-10.0	1/15/2020	5	10	ft	6.4	mg/kg		0.68	Yes	3.0	Yes	7.779	--

Table 5-11 Summary of Subsurface Arsenic Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Process Area	MW-10	MW-10-2.0-5.0	1/16/2020	2	5	ft	2.3	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Process Area	MW-10	MW-10-5.0-10.0	1/16/2020	5	10	ft	2.2	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Process Area	MW-10	MW-10-16.0-18.0-D	1/16/2020	16	18	ft	2.2	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Process Area	MW-10	MW-10-16.0-18.0	1/16/2020	16	18	ft	2.4	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Open Area	ACMW-03	ACMW-3-2.0-5.0	1/15/2020	2	5	ft	3.6	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Open Area	ACMW-03	ACMW-3-5.0-6.0	1/15/2020	5	6	ft	5.6	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Open Area	ACMW-03	ACMW-3-18.0-20.0	1/21/2020	18	20	ft	6	mg/kg	J	0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-01	DSB-1-9.0-11.0	5/13/2019	9	11	ft	8.7	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	DSB-02	DSB-2-2.0-5.0	5/13/2019	2	5	ft	6.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-02	DSB-2-9.0-11.0	5/13/2019	9	11	ft	6.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-03	DSB-3-8.0-10.0	5/15/2019	8	10	ft	5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-04	DSB-4-13.0-15.0	5/14/2019	13	15	ft	14.2	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	DSB-05	DSB-5-2.0-5.0	5/14/2019	2	5	ft	3.6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-05	DSB-5-9.0-11.0	5/14/2019	9	11	ft	22.1	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	DSB-06	DSB-6-13.0-15.0	5/14/2019	13	15	ft	21.5	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	DSB-07	DSB-7-2.0-5.0	5/15/2019	2	5	ft	5.6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-07	DSB-7-9.0-11.0	5/15/2019	9	11	ft	4.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	DSB-09	DSB-9-2.0-5.0	5/13/2019	2	5	ft	17.6	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	DSB-09	DSB-9-10.0-12.0	5/13/2019	10	12	ft	8.2	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	JSB-01	JSB-1-2.0-5.0	5/13/2019	2	5	ft	4.3	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-01	JSB-1-9.0-11.0	5/13/2019	9	11	ft	5.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-03	JSB-3-2.0-5.0	5/13/2019	2	5	ft	6.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-03	JSB-3-11.0-13.0	5/13/2019	11	13	ft	8.4	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	JSB-05	JSB-5-2.0-5.0	1/16/2020	2	5	ft	2.4	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Open Area	JSB-05	JSB-5-5.0-10.0	1/16/2020	5	10	ft	2.3	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Open Area	JSB-05	JSB-5-13.0-15.0	1/16/2020	13	15	ft	2.2	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Open Area	JSB-07	JSB-7-2.0-5.0	1/13/2020	2	5	ft	6.4	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-07	JSB-7-5.0-10.0	1/13/2020	5	10	ft	2.8	mg/kg		0.68	Yes	3.0	--	7.779	--
Open Area	JSB-07	JSB-7-10.0-15.0	1/13/2020	10	15	ft	13	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes

Table 5-11 Summary of Subsurface Arsenic Detections and Exceedances

Area	Sample Location	Sample Identification	Sample Date	Start Depth	End Depth	Depth Unit	Results	Results Unit	Qualifier	Residential Soil RSL	Residential Soil RSL Exceedance	Industrial Soil RSL	Industrial Soil RSL Exceedance	Calcuated Background	Calcuated Background Exceedance
Open Area	JSB-08	JSB-8-2.0-5.0	1/13/2020	2	5	ft	7.2	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-08	JSB-8-5.0-10.0-D	1/13/2020	5	10	ft	4.1	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-08	JSB-8-5.0-10.0	1/13/2020	5	10	ft	3.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	JSB-08	JSB-8-10.0-15.0	1/13/2020	10	15	ft	11.9	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	MW-02	MW-2-14.0-16.0	5/14/2019	14	16	ft	15.1	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	MW-03	MW-3-9.0-11.0	5/15/2019	9	11	ft	4.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-04	MW-4-2.0-5.0	1/13/2020	2	5	ft	5.6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-04	MW-4-5.0-10.0	1/13/2020	5	10	ft	4.6	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-04	MW-4-10.0-15.0	1/13/2020	10	15	ft	9.6	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	MW-05	MW-5-2.0-5.0	1/13/2020	2	5	ft	5.4	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-05	MW-5-5.0-10.0	1/13/2020	5	10	ft	3.3	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-06	MW-6-2.0-5.0-D	1/14/2020	2	5	ft	9	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	MW-06	MW-6-2.0-5.0	1/14/2020	2	5	ft	7.5	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-06	MW-6-5.0-10.0	1/14/2020	5	10	ft	2.4	mg/kg		0.68	Yes	3.0	--	7.779	--
Open Area	MW-06	MW-6-17.0-19.0	1/14/2020	17	19	ft	9.1	mg/kg		0.68	Yes	3.0	Yes	7.779	Yes
Open Area	MW-07	MW-7-2.0-5.0	1/14/2020	2	5	ft	5.3	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-07	MW-7-5.0-10.0	1/14/2020	5	10	ft	3.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-07	MW-7-12.0-14.0	1/14/2020	12	14	ft	4.7	mg/kg		0.68	Yes	3.0	Yes	7.779	--
Open Area	MW-08	MW-8-2.0-5.0	1/16/2020	2	5	ft	2.3	mg/kg	UJ	0.68	--	3.0	--	7.779	--
Open Area	MW-08	MW-8-5.0-6.0	1/16/2020	5	6	ft	2.4	mg/kg	J	0.68	Yes	3.0	--	7.779	--

Notes
ft = Feet/foot.
mg/kg = Milligram(s) per kilogram
J = Analyte was positively identified, but the associated numerical value is estimated.
U = The analyte was not detected at or above the reporting limit.

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Tapwater RSL [1]	EPA Tapwater RSL Exceedance [6]	National Recommended Water Quality Criteria [2]					
										Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Human Health for Consumption Organism Only	Human Health for Consumption Organism Only Exceedance [6]
Total Metals (ILM05.3/ISM02.4)															
Aluminum [7]	7429-90-5	Surface Water	µg/L	70	23,200	SW-04_07/20/2016	25/32	20,000	1.16E+00	750	3.09E+01	87	2.67E+02	NS	--
Antimony	7440-36-0	Surface Water	µg/L	ND	ND	--	0/32	7.8	--	NS	--	2,200	--	640	--
Arsenic	7440-38-2	Surface Water	µg/L	1.2	17.6	SW-04_07/20/2016	29/32	0.52	3.38E+01	340	--	150	--	0.14	1.26E+02
Barium	7440-39-3	Surface Water	µg/L	47.5	376	SW-04_07/20/2016	32/32	3,800	--	NS	--	1,600	--	NS	--
Beryllium	7440-41-7	Surface Water	µg/L	ND	ND	--	0/32	25	--	NS	--	5.3	--	NS	--
Bismuth	7440-69-9	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--	NS	--
Cadmium [8]	7440-43-9	Surface Water	µg/L	ND	ND	--	0/32	9.20	--	1.8	--	0.72	--	NS	--
Calcium	7440-70-2	Surface Water	µg/L	50,800	408,000	SW-04_07/20/2016	32/32	NS	--	NS	--	NS	--	NS	--
Chromium	7440-47-3	Surface Water	µg/L	51.3	51.3	SW-04_07/20/2016	1/32	0.35	1.47E+02	570	--	42	1.22E+00	NS	--
Cobalt	7440-48-4	Surface Water	µg/L	0.52	3.5	LSW-02_05/14/2019	4/32	6	--	NS	--	NS	--	NS	--
Copper	7440-50-8	Surface Water	µg/L	0.47	41.2	SW-04_07/20/2016	5/32	800	--	NS	--	NS	--	NS	--
Indium	7440-74-6	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--	NS	--
Iron	7439-89-6	Surface Water	µg/L	186	25,400	SW-04_07/20/2016	32/32	14,000	1.81E+00	NS	--	1,000	2.54E+01	NS	--
Lead	7439-92-1	Surface Water	µg/L	0.2	139	SW-04_07/20/2016	13/32	15.00	9.27E+00	65	2.14E+00	2.5	5.56E+01	NS	--
Magnesium	7439-95-4	Surface Water	µg/L	1,980	9,200	SW-04_07/20/2016	32/32	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Surface Water	µg/L	47.6	2,730	SW-04_07/20/2016	32/32	430	6.35E+00	NS	--	NS	--	100	2.73E+01
Mercury	7439-97-6	Surface Water	µg/L	0.357	0.357	SW-04_07/20/2016	1/32	2.00	--	1.4	--	0.77	--	NS	--
Nickel	7440-02-0	Surface Water	µg/L	2.9	42.6	SW-04_07/20/2016	19/32	390	--	470	--	52	--	4,600	--
Potassium	7440-09-7	Surface Water	µg/L	2,050	6,650	LSW-06_05/16/2019	18/32	NS	--	NS	--	NS	--	NS	--
Scandium-46	13967-63-0	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Surface Water	µg/L	0.47	1.9	LSW-04_05/16/2019, LSW-05_05/16/2019	18/32	100	--	NS	--	NS	--	4,200	--
Silver	7440-22-4	Surface Water	µg/L	ND	ND	--	0/32	94	--	3.2	--	NS	--	NS	--
Sodium	7440-23-5	Surface Water	µg/L	2,260	79,000	SW-11_07/18/2016	32/32	NS	--	NS	--	NS	--	NS	--
Thallium	7440-28-0	Surface Water	µg/L	ND	ND	--	0/32	0.20	--	NS	--	NS	--	0.47	--
Vanadium	7440-62-2	Surface Water	µg/L	0.29	75.9	SW-04_07/20/2016	19/32	86	--	NS	--	NS	--	NS	--
Zinc	7440-66-6	Surface Water	µg/L	1.5	239	SW-04_07/20/2016	20/32	6,000	--	120	1.99E+00	120	1.99E+00	26,000	--
Total Hexavalent Chromium (E218.6)															
Chromium (hexavalent)	18540-29-9	Surface Water	µg/L	0.2	0.2	LSW-21_01/13/2020	1/20	0.35	--	16	--	11	--	NS	--
Dissolved Metals (ILM05.3/ISM02.4)															
Aluminum [7]	7429-90-5	Surface Water	µg/L	115	115	LSW-06-F_05/16/2019	1/21	20,000	--	750	--	87	1.32E+00	NS	--
Antimony	7440-36-0	Surface Water	µg/L	ND	ND	--	0/21	7.8	--	NS	--	2,200	--	640	--
Arsenic	7440-38-2	Surface Water	µg/L	0.92	4.7	LSW-02-F_05/14/2019	19/21	0.52	9.04E+00	340	--	150	--	0.14	3.36E+01
Barium	7440-39-3	Surface Water	µg/L	46.4	120	LSW-02-F_05/14/2019	21/21	3,800	--	NS	--	1,600	--	NS	--
Beryllium	7440-41-7	Surface Water	µg/L	ND	ND	--	0/21	25	--	NS	--	5.3	--	NS	--
Cadmium [8]	7440-43-9	Surface Water	µg/L	ND	ND	--	0/21	9.20	--	1.8	--	0.72	--	NS	--
Calcium	7440-70-2	Surface Water	µg/L	60,800	189,000	LSW-04-F_05/16/2019	21/21	NS	--	NS	--	NS	--	NS	--
Chromium	7440-47-3	Surface Water	µg/L	ND	ND	--	0/21	0.35	--	570	--	42	--	NS	--
Cobalt	7440-48-4	Surface Water	µg/L	1.3	3.7	LSW-02-F_05/14/2019	2/21	6	--	NS	--	NS	--	NS	--
Copper	7440-50-8	Surface Water	µg/L	0.42	1.1	LSW-03-F_05/16/2019	19/21	800	--	NS	--	NS	--	NS	--
Iron	7439-89-6	Surface Water	µg/L	35.7	518	LSW-06-F_05/16/2019	7/21	14,000	--	NS	--	1,000	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Tapwater RSL [1]	EPA Tapwater RSL Exceedance [6]	National Recommended Water Quality Criteria [2]					
										Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Human Health for Consumption Organism Only	Human Health for Consumption Organism Only Exceedance [6]
Lead	7439-92-1	Surface Water	µg/L	0.03	0.12	LSW-06-F_05/16/2019	6/21	15	--	65	--	2.5	--	NS	--
Magnesium	7439-95-4	Surface Water	µg/L	1,940	4,620	LSW-04-F_05/16/2019	21/21	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Surface Water	µg/L	19.6	1,680	LSW-02-F_05/14/2019	21/21	430	3.91E+00	NS	--	NS	--	100	1.68E+01
Mercury	7439-97-6	Surface Water	µg/L	ND	ND	--	0/21	2	--	1.4	--	0.77	--	NS	--
Nickel	7440-02-0	Surface Water	µg/L	2.7	5.8	LSW-02-F_05/14/2019	19/21	390	--	470	--	52	--	4,600	--
Potassium	7440-09-7	Surface Water	µg/L	2,070	6,610	LSW-06-F_05/16/2019	21/21	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Surface Water	µg/L	0.52	2.4	LSW-07-F_05/16/2019	19/21	100	--	NS	--	NS	--	4,200	--
Silver	7440-22-4	Surface Water	µg/L	ND	ND	--	0/21	94	--	3.2	--	NS	--	NS	--
Sodium	7440-23-5	Surface Water	µg/L	10,200	23,400	LSW-14-F_05/17/2019	19/21	NS	--	NS	--	NS	--	NS	--
Thallium	7440-28-0	Surface Water	µg/L	ND	ND	--	0/21	0.2	--	NS	--	NS	--	0.47	--
Vanadium	7440-62-2	Surface Water	µg/L	0.16	2.3	LSW-03-F_05/16/2019	19/21	86	--	NS	--	NS	--	NS	--
Zinc	7440-66-6	Surface Water	µg/L	0.96	4.6	LSW-16-F_05/14/2019	19/21	6,000	--	120	--	120	--	26,000	--
Cyanide (ISM02.4)															
Cyanide	57-12-5	Surface Water	µg/L	32.9	32.9	LSW-08_05/16/2019	1/30	1.5	2.19E+01	22	1.50E+00	5.2	6.33E+00	400	--
Volatile Organic Compounds (OLM04.2)															
1,1,1-Trichloroethane	71-55-6	Surface Water	µg/L	ND	ND	--	0/2	8,000	--	NS	--	NS	--	200,000	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Water	µg/L	ND	ND	--	0/2	0.76	--	NS	--	NS	--	3	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Water	µg/L	ND	ND	--	0/2	10,000	--	NS	--	NS	--	NS	--
1,1,2-Trichloroethane	79-00-5	Surface Water	µg/L	ND	ND	--	0/2	0.28	--	NS	--	NS	--	8.9	--
1,1-Dichloroethane	75-34-3	Surface Water	µg/L	ND	ND	--	0/2	28	--	NS	--	NS	--	NS	--
1,1-Dichloroethene	75-35-4	Surface Water	µg/L	ND	ND	--	0/2	280	--	NS	--	NS	--	20,000	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Water	µg/L	ND	ND	--	0/2	0.003	--	NS	--	NS	--	NS	--
1,2-Dibromoethane	106-93-4	Surface Water	µg/L	ND	ND	--	0/2	0.075	--	NS	--	NS	--	NS	--
1,2-Dichloroethane	107-06-2	Surface Water	µg/L	ND	ND	--	0/2	1.7	--	NS	--	NS	--	650	--
1,2-Dichloropropane	78-87-5	Surface Water	µg/L	ND	ND	--	0/2	0.85	--	NS	--	NS	--	31	--
2-Butanone	78-93-3	Surface Water	µg/L	ND	ND	--	0/2	5,600	--	NS	--	NS	--	NS	--
2-Hexanone	591-78-6	Surface Water	µg/L	ND	ND	--	0/2	38	--	NS	--	NS	--	NS	--
4-Methyl-2-pentanone	108-10-1	Surface Water	µg/L	ND	ND	--	0/2	6,300	--	NS	--	NS	--	NS	--
Acetone	67-64-1	Surface Water	µg/L	6.4	9.4	LSW-09_05/15/2019	2/2	14,000	--	NS	--	NS	--	NS	--
Benzene	71-43-2	Surface Water	µg/L	ND	ND	--	0/2	4.6	--	NS	--	NS	--	16	--
Bromodichloromethane	75-27-4	Surface Water	µg/L	ND	ND	--	0/2	1.3	--	NS	--	NS	--	27	--
Bromoform	75-25-2	Surface Water	µg/L	ND	ND	--	0/2	33	--	NS	--	NS	--	120	--
Bromomethane	74-83-9	Surface Water	µg/L	ND	ND	--	0/2	7.5	--	NS	--	NS	--	10,000	--
Carbon disulfide	75-15-0	Surface Water	µg/L	ND	ND	--	0/2	810	--	NS	--	NS	--	NS	--
Carbon tetrachloride	56-23-5	Surface Water	µg/L	ND	ND	--	0/2	4.6	--	NS	--	NS	--	5	--
Chlorobenzene	108-90-7	Surface Water	µg/L	ND	ND	--	0/2	78	--	NS	--	NS	--	800	--
Chloroethane	75-00-3	Surface Water	µg/L	ND	ND	--	0/2	21,000	--	NS	--	NS	--	NS	--
Chloroform	67-66-3	Surface Water	µg/L	ND	ND	--	0/2	2.2	--	NS	--	NS	--	2,000	--
Chloromethane	74-87-3	Surface Water	µg/L	ND	ND	--	0/2	190	--	NS	--	NS	--	NS	--
cis-1,2-dichloroethene	156-59-2	Surface Water	µg/L	ND	ND	--	0/2	36	--	NS	--	NS	--	NS	--
cis-1,3-dichloropropene	10061-01-5	Surface Water	µg/L	ND	ND	--	0/2	4.7	--	NS	--	NS	--	NS	--
Cyclohexane	110-82-7	Surface Water	µg/L	ND	ND	--	0/2	13,000	--	NS	--	NS	--	NS	--
Dibromochloromethane	124-48-1	Surface Water	µg/L	ND	ND	--	0/2	8.7	--	NS	--	NS	--	21	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Tapwater RSL [1]	EPA Tapwater RSL Exceedance [6]	National Recommended Water Quality Criteria [2]					
										Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Human Health for Consumption Organism Only	Human Health for Consumption Organism Only Exceedance [6]
Dichlorodifluoromethane	75-71-8	Surface Water	µg/L	ND	ND	--	0/2	200	--	NS	--	NS	--	NS	--
Ethylbenzene	100-41-4	Surface Water	µg/L	ND	ND	--	0/2	15	--	NS	--	NS	--	130	--
Isopropylbenzene	98-82-8	Surface Water	µg/L	ND	ND	--	0/2	450	--	NS	--	NS	--	NS	--
m,p-Xylene	179601-23-1	Surface Water	µg/L	ND	ND	--	0/2	190	--	NS	--	NS	--	NS	--
Methyl acetate	79-20-9	Surface Water	µg/L	ND	ND	--	0/2	20,000	--	NS	--	NS	--	NS	--
Methyl tert-butyl ether	1634-04-4	Surface Water	µg/L	ND	ND	--	0/2	140	--	NS	--	NS	--	NS	--
Methylcyclohexane	108-87-2	Surface Water	µg/L	ND	ND	--	0/2	13,000	--	NS	--	NS	--	NS	--
Methylene Chloride	75-09-2	Surface Water	µg/L	ND	ND	--	0/2	11	--	NS	--	NS	--	1,000	--
o-Xylene	95-47-6	Surface Water	µg/L	ND	ND	--	0/2	190	--	NS	--	NS	--	NS	--
Styrene	100-42-5	Surface Water	µg/L	ND	ND	--	0/2	1,200	--	NS	--	NS	--	NS	--
Tetrachloroethene	127-18-4	Surface Water	µg/L	ND	ND	--	0/2	11	--	NS	--	NS	--	29	--
Toluene	108-88-3	Surface Water	µg/L	ND	ND	--	0/2	1,100	--	NS	--	NS	--	520	--
trans-1,2-dichloroethene	156-60-5	Surface Water	µg/L	ND	ND	--	0/2	360	--	NS	--	NS	--	4,000	--
trans-1,3-dichloropropene	10061-02-6	Surface Water	µg/L	ND	ND	--	0/2	4.7	--	NS	--	NS	--	NS	--
Trichloroethene	79-01-6	Surface Water	µg/L	ND	ND	--	0/2	0.49	--	NS	--	NS	--	7	--
Trichlorofluoromethane	75-69-4	Surface Water	µg/L	ND	ND	--	0/2	5,200	--	NS	--	NS	--	NS	--
Vinyl chloride	75-01-4	Surface Water	µg/L	ND	ND	--	0/2	0.19	--	NS	--	NS	--	1.6	--
Semivolatile Organic Compounds (OLM04.2)															
1,1'-Biphenyl	92-52-4	Surface Water	µg/L	ND	ND	--	0/2	0.83	--	NS	--	NS	--	NS	--
1,2,4-Trichlorobenzene	120-82-1	Surface Water	µg/L	ND	ND	--	0/2	1.2	--	NS	--	NS	--	0.076	--
1,2-Dichlorobenzene	95-50-1	Surface Water	µg/L	ND	ND	--	0/2	300	--	NS	--	NS	--	3,000	--
1,3-Dichlorobenzene	541-73-1	Surface Water	µg/L	ND	ND	--	0/2	300	--	NS	--	NS	--	10	--
1,4-Dichlorobenzene	106-46-7	Surface Water	µg/L	ND	ND	--	0/2	4.8	--	NS	--	NS	--	900	--
1-Methylnaphthalene	90-12-0	Surface Water	µg/L	ND	ND	--	0/2	11	--	NS	--	NS	--	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Water	µg/L	ND	ND	--	0/2	710	--	NS	--	NS	--	4,000	--
2,4,5-Trichlorophenol	95-95-4	Surface Water	µg/L	ND	ND	--	0/2	1,200	--	NS	--	NS	--	600	--
2,4,6-Trichlorophenol	88-06-2	Surface Water	µg/L	ND	ND	--	0/2	4.10	--	NS	--	NS	--	2.8	--
2,4-Dichlorophenol	120-83-2	Surface Water	µg/L	ND	ND	--	0/2	46	--	NS	--	NS	--	60	--
2,4-Dimethylphenol	105-67-9	Surface Water	µg/L	ND	ND	--	0/2	360	--	NS	--	NS	--	3,000	--
2,4-Dinitrophenol	51-28-5	Surface Water	µg/L	ND	ND	--	0/2	39	--	NS	--	NS	--	300	--
2,4-Dinitrotoluene	121-14-2	Surface Water	µg/L	ND	ND	--	0/2	2.4	--	NS	--	NS	--	1.7	--
2,6-Dinitrotoluene	606-20-2	Surface Water	µg/L	ND	ND	--	0/2	0.49	--	NS	--	NS	--	NS	--
2-Chloronaphthalene	91-58-7	Surface Water	µg/L	ND	ND	--	0/2	750	--	NS	--	NS	--	1,000	--
2-Chlorophenol	95-57-8	Surface Water	µg/L	ND	ND	--	0/2	91	--	NS	--	NS	--	800	--
2-Methylnaphthalene	91-57-6	Surface Water	µg/L	ND	ND	--	0/2	36	--	NS	--	NS	--	NS	--
2-Methylphenol	95-48-7	Surface Water	µg/L	ND	ND	--	0/2	930	--	NS	--	NS	--	NS	--
2-Nitroaniline	88-74-4	Surface Water	µg/L	ND	ND	--	0/2	190	--	NS	--	NS	--	NS	--
2-Nitrophenol	88-75-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
3&4-methylphenol	34MP	Surface Water	µg/L	ND	ND	--	0/2	930	--	NS	--	NS	--	NS	--
3,3'-Dichlorobenzidine	91-94-1	Surface Water	µg/L	ND	ND	--	0/2	1.3	--	NS	--	NS	--	0.15	--
3-Nitroaniline	99-09-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Water	µg/L	ND	ND	--	0/2	1.5	--	NS	--	NS	--	NS	--
4-Bromophenyl phenyl ether	101-55-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Tapwater RSL [1]	EPA Tapwater RSL Exceedance [6]	National Recommended Water Quality Criteria [2]					
										Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Human Health for Consumption Organism Only	Human Health for Consumption Organism Only Exceedance [6]
4-chloro-3-methylphenol	59-50-7	Surface Water	µg/L	ND	ND	--	0/2	1,400	--	NS	--	NS	--	2,000	--
4-Chloroaniline	106-47-8	Surface Water	µg/L	ND	ND	--	0/2	3.7	--	NS	--	NS	--	NS	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Water	µg/L	ND	ND	--	0/2	38	--	NS	--	NS	--	NS	--
4-Nitrophenol	100-02-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Acenaphthene	83-32-9	Surface Water	µg/L	ND	ND	--	0/2	530	--	NS	--	NS	--	90	--
Acenaphthylene	208-96-8	Surface Water	µg/L	ND	ND	--	0/2	530	--	NS	--	NS	--	NS	--
Acetophenone	98-86-2	Surface Water	µg/L	ND	ND	--	0/2	1,900	--	NS	--	NS	--	NS	--
Anthracene	120-12-7	Surface Water	µg/L	ND	ND	--	0/2	1,800	--	NS	--	NS	--	400	--
Atrazine	1912-24-9	Surface Water	µg/L	ND	ND	--	0/2	3	--	NS	--	NS	--	NS	--
Benzaldehyde	100-52-7	Surface Water	µg/L	ND	ND	--	0/2	190	--	NS	--	NS	--	NS	--
Benzo[a]anthracene	56-55-3	Surface Water	µg/L	ND	ND	--	0/2	0.3	--	NS	--	NS	--	0.0013	--
Benzo[a]pyrene	50-32-8	Surface Water	µg/L	ND	ND	--	0/2	0.25	--	NS	--	NS	--	0.00013	--
Benzo[b]fluoranthene	205-99-2	Surface Water	µg/L	ND	ND	--	0/2	2.5	--	NS	--	NS	--	0.0013	--
Benzo[g,h,i]perylene	191-24-2	Surface Water	µg/L	ND	ND	--	0/2	120	--	NS	--	NS	--	NS	--
Benzo[k]fluoranthene	207-08-9	Surface Water	µg/L	ND	ND	--	0/2	25	--	NS	--	NS	--	0.013	--
Benzyl alcohol	100-51-6	Surface Water	µg/L	ND	ND	--	0/2	2,000	--	NS	--	NS	--	NS	--
Benzyl butyl phthalate	85-68-7	Surface Water	µg/L	ND	ND	--	0/2	160	--	NS	--	NS	--	0.1	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Water	µg/L	ND	ND	--	0/2	59	--	NS	--	NS	--	NS	--
Bis(2-chloroethyl) ether	111-44-4	Surface Water	µg/L	ND	ND	--	0/2	0.14	--	NS	--	NS	--	2.2	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Water	µg/L	ND	ND	--	0/2	56	--	NS	--	NS	--	0.37	--
Caprolactam	105-60-2	Surface Water	µg/L	ND	ND	--	0/2	9,900	--	NS	--	NS	--	NS	--
Carbazole	86-74-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Chrysene	218-01-9	Surface Water	µg/L	ND	ND	--	0/2	250	--	NS	--	NS	--	0.13	--
Dibenz[a,h]anthracene	53-70-3	Surface Water	µg/L	ND	ND	--	0/2	0.25	--	NS	--	NS	--	0.00013	--
Dibenzofuran	132-64-9	Surface Water	µg/L	ND	ND	--	0/2	7.9	--	NS	--	NS	--	NS	--
Diethyl phthalate	84-66-2	Surface Water	µg/L	ND	ND	--	0/2	15,000	--	NS	--	NS	--	600	--
Dimethyl phthalate	131-11-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	2,000	--
di-n-Butyl phthalate	84-74-2	Surface Water	µg/L	ND	ND	--	0/2	900	--	NS	--	NS	--	30	--
Di-n-octyl phthalate	117-84-0	Surface Water	µg/L	ND	ND	--	0/2	200	--	NS	--	NS	--	NS	--
Fluoranthene	206-44-0	Surface Water	µg/L	ND	ND	--	0/2	800	--	NS	--	NS	--	20	--
Fluorene	86-73-7	Surface Water	µg/L	ND	ND	--	0/2	290	--	NS	--	NS	--	70	--
Hexachlorobenzene	118-74-1	Surface Water	µg/L	ND	ND	--	0/2	0.098	--	NS	--	NS	--	0.00008	--
Hexachlorobutadiene	87-68-3	Surface Water	µg/L	ND	ND	--	0/2	1.4	--	NS	--	NS	--	0.01	--
Hexachlorocyclopentadiene	77-47-4	Surface Water	µg/L	ND	ND	--	0/2	0.41	--	NS	--	NS	--	4	--
Hexachloroethane	67-72-1	Surface Water	µg/L	ND	ND	--	0/2	3.3	--	NS	--	NS	--	0.1	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Water	µg/L	ND	ND	--	0/2	2.5	--	NS	--	NS	--	0.0013	--
Isophorone	78-59-1	Surface Water	µg/L	ND	ND	--	0/2	780	--	NS	--	NS	--	1,800	--
Naphthalene	91-20-3	Surface Water	µg/L	ND	ND	--	0/2	1.2	--	NS	--	NS	--	NS	--
Nitrobenzene	98-95-3	Surface Water	µg/L	ND	ND	--	0/2	1.4	--	NS	--	NS	--	600	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Water	µg/L	ND	ND	--	0/2	0.11	--	NS	--	NS	--	0.51	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Water	µg/L	ND	ND	--	0/2	0.41	--	NS	--	NS	--	0.04	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Tapwater RSL [1]	EPA Tapwater RSL Exceedance [6]	National Recommended Water Quality Criteria [2]					
										Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Human Health for Consumption Organism Only	Human Health for Consumption Organism Only Exceedance [6]
Phenanthrene	85-01-8	Surface Water	µg/L	ND	ND	--	0/2	1,800	--	NS	--	NS	--	NS	--
Phenol	108-95-2	Surface Water	µg/L	ND	ND	--	0/2	5,800	--	NS	--	NS	--	300,000	--
Pyrene	129-00-0	Surface Water	µg/L	ND	ND	--	0/2	120	--	NS	--	NS	--	30	--
PFAS (E537.0M)															
Perfluorobutanesulfonic acid	375-73-5	Surface Water	µg/L	0.0034	0.026	LSW-09_05/15/2019	3/3	400	--	NS	--	NS	--	NS	--
Perfluorobutanoic acid	375-22-4	Surface Water	µg/L	0.008	0.022	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Water	µg/L	0.0017	0.015	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Water	µg/L	0.0029	0.071	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Water	µg/L	0.013	0.036	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Water	µg/L	0.0013	0.0013	LSW-01_05/15/2019	1/3	NS	--	NS	--	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Water	µg/L	0.0043	0.032	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Water	µg/L	0.00083	0.01	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Water	µg/L	0.024	0.046	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
PCB Aroclors (OLM04.2)															
Aroclor 1016	12674-11-2	Surface Water	µg/L	ND	ND	--	0/2	0.22	--	NS	--	NS	--	NS	--
Aroclor 1221	11104-28-2	Surface Water	µg/L	ND	ND	--	0/2	0.047	--	NS	--	NS	--	NS	--
Aroclor 1232	11141-16-5	Surface Water	µg/L	ND	ND	--	0/2	0.047	--	NS	--	NS	--	NS	--
Aroclor 1242	53469-21-9	Surface Water	µg/L	ND	ND	--	0/2	0.078	--	NS	--	NS	--	NS	--
Aroclor 1248	12672-29-6	Surface Water	µg/L	ND	ND	--	0/2	0.078	--	NS	--	NS	--	NS	--
Aroclor 1254	11097-69-1	Surface Water	µg/L	ND	ND	--	0/2	0.078	--	NS	--	NS	--	NS	--
Aroclor 1260	11096-82-5	Surface Water	µg/L	ND	ND	--	0/2	0.078	--	NS	--	NS	--	NS	--
Total Petroleum Hyrdrocarbons (TX1005)															
TPH (C12-C28)	TPHC12C28	Surface Water	µg/L	ND	ND	--	0/2	1,300	--	NS	--	NS	--	NS	--
TPH (C6-C28)	TPHC6C28	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
TPH (C6-C12)	TPHC6C12	Surface Water	µg/L	ND	ND	--	0/2	5.5	--	NS	--	NS	--	NS	--
TPH (C28-C35)	TPHC28C35	Surface Water	µg/L	ND	ND	--	0/2	800	--	NS	--	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Tapwater RSL [1]	EPA Tapwater RSL Exceedance [6]	National Recommended Water Quality Criteria [2]					
										Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Human Health for Consumption Organism Only	Human Health for Consumption Organism Only Exceedance [6]

Notes:

1. EPA Region 6 Regional Screening Levels (RSLs) for Tapwater (May 2020) for hazard index = 1.0 for non-carcinogens and a 10-6 cancer risk level for carcinogens.
RSL surrogates used: Chromium (VI) for Chromium, Methyl Mercury for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. EPA National Recommended Water Quality Criteria (accessed May 2020 at https://www.epa.gov/wqc/national-recommended-water-quality-criteria).

3. TCEQ Texas Surface Water Quality Standards (TCEQ 2018)

4. Texas Surface Water Quality Standards aquatic life protection values for cadmium, copper, chromium, lead, nickel, and zinc are hardness dependent and were calculated assuming a hardness of 100 mg/L as CaCO3.

5. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (not specified).

6. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.

7. National Recommended Water Quality criteria for aluminum is for a pH range of 6.5-9.0.

8. Cadmium fresh water values are hardness dependent and were calculated assuming a hardness of 100 mg/L as CaCO3.

-- = Not applicable.

µg/L = Microgram per liter.

NS = No screening level.

ND = Not detected.

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Ecological Benchmarks (RG-263b)				Texas Surface Water Quality Standards [3,4]			
								Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Aquatic Life Protection Freshwater Acute	Aquatic Life Protection Freshwater Acute Exceedance [6]	Aquatic Life Protection Freshwater Chronic	Aquatic Life Protection Freshwater Chronic Exceedance [6]
Total Metals (ILM05.3/ISM02.4)															
Aluminum [7]	7429-90-5	Surface Water	µg/L	70	23,200	SW-04_07/20/2016	25/32	991	2.34E+01	87	2.67E+02	991	2.34E+01	NS	--
Antimony	7440-36-0	Surface Water	µg/L	ND	ND	--	0/32	6,600	--	2,200	--	NS	--	NS	--
Arsenic	7440-38-2	Surface Water	µg/L	1.2	17.6	SW-04_07/20/2016	29/32	340	--	150	--	340	--	150	--
Barium	7440-39-3	Surface Water	µg/L	47.5	376	SW-04_07/20/2016	32/32	123,000	--	20,500	--	NS	--	NS	--
Beryllium	7440-41-7	Surface Water	µg/L	ND	ND	--	0/32	690	--	110	--	NS	--	NS	--
Bismuth	7440-69-9	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--	NS	--
Cadmium [8]	7440-43-9	Surface Water	µg/L	ND	ND	--	0/32	4.37	--	0.15	--	8.58	--	0.25	--
Calcium	7440-70-2	Surface Water	µg/L	50,800	408,000	SW-04_07/20/2016	32/32	NS	--	NS	--	NS	--	NS	--
Chromium	7440-47-3	Surface Water	µg/L	51.3	51.3	SW-04_07/20/2016	1/32	NS	--	NS	--	569.7	--	74.11	--
Cobalt	7440-48-4	Surface Water	µg/L	0.52	3.5	LSW-02_05/14/2019	4/32	420	--	70	--	NS	--	NS	--
Copper	7440-50-8	Surface Water	µg/L	0.47	41.2	SW-04_07/20/2016	5/32	7	5.58E+00	5	7.86E+00	13.44	3.07E+00	9.47	4.35E+00
Indium	7440-74-6	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--	NS	--
Iron	7439-89-6	Surface Water	µg/L	186	25,400	SW-04_07/20/2016	32/32	NS	--	1,000	2.54E+01	NS	--	NS	--
Lead	7439-92-1	Surface Water	µg/L	0.2	139	SW-04_07/20/2016	13/32	30	4.61E+00	1	1.19E+02	64.58	2.15E+00	2.52	5.52E+01
Magnesium	7439-95-4	Surface Water	µg/L	1,980	9,200	SW-04_07/20/2016	32/32	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Surface Water	µg/L	47.6	2,730	SW-04_07/20/2016	32/32	2,370	1.15E+00	1,310	2.08E+00	NS	--	NS	--
Mercury	7439-97-6	Surface Water	µg/L	0.357	0.357	SW-04_07/20/2016	1/32	2.4	--	1.3	--	2.4	--	1.3	--
Nickel	7440-02-0	Surface Water	µg/L	2.9	42.6	SW-04_07/20/2016	19/32	260	--	28.93	1.47E+00	468.25	--	52.01	--
Potassium	7440-09-7	Surface Water	µg/L	2,050	6,650	LSW-06_05/16/2019	18/32	NS	--	NS	--	NS	--	NS	--
Scandium-46	13967-63-0	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Surface Water	µg/L	0.47	1.9	LSW-04_05/16/2019, LSW-05_05/16/2019	18/32	20	--	5	--	20	--	5	--
Silver	7440-22-4	Surface Water	µg/L	ND	ND	--	0/32	1	--	0.1	--	0.8	--	NS	--
Sodium	7440-23-5	Surface Water	µg/L	2,260	79,000	SW-11_07/18/2016	32/32	NS	--	NS	--	NS	--	NS	--
Thallium	7440-28-0	Surface Water	µg/L	ND	ND	--	0/32	540	--	180	--	NS	--	NS	--
Vanadium	7440-62-2	Surface Water	µg/L	0.29	75.9	SW-04_07/20/2016	19/32	284	--	20	3.80E+00	NS	--	NS	--
Zinc	7440-66-6	Surface Water	µg/L	1.5	239	SW-04_07/20/2016	20/32	65.1	3.67E+00	65.7	3.64E+00	117.18	2.04E+00	118.14	2.02E+00
Total Hexavalent Chromium (E218.6)															
Chromium (hexavalent)	18540-29-9	Surface Water	µg/L	0.2	0.2	LSW-21_01/13/2020	1/20	15.7	--	10.6	--	15.7	--	10.6	--
Dissolved Metals (ILM05.3/ISM02.4)															
Aluminum [7]	7429-90-5	Surface Water	µg/L	115	115	LSW-06-F_05/16/2019	1/21	991	--	87	1.32E+00	991	--	NS	--
Antimony	7440-36-0	Surface Water	µg/L	ND	ND	--	0/21	6,600	--	2,200	--	NS	--	NS	--
Arsenic	7440-38-2	Surface Water	µg/L	0.92	4.7	LSW-02-F_05/14/2019	19/21	340	--	150	--	340	--	150	--
Barium	7440-39-3	Surface Water	µg/L	46.4	120	LSW-02-F_05/14/2019	21/21	123,000	--	20,500	--	NS	--	NS	--
Beryllium	7440-41-7	Surface Water	µg/L	ND	ND	--	0/21	690	--	110	--	NS	--	NS	--
Cadmium [8]	7440-43-9	Surface Water	µg/L	ND	ND	--	0/21	4.37	--	0.15	--	8.58	--	0.25	--
Calcium	7440-70-2	Surface Water	µg/L	60,800	189,000	LSW-04-F_05/16/2019	21/21	NS	--	NS	--	NS	--	NS	--
Chromium	7440-47-3	Surface Water	µg/L	ND	ND	--	0/21	NS	--	NS	--	569.7	--	74.11	--
Cobalt	7440-48-4	Surface Water	µg/L	1.3	3.7	LSW-02-F_05/14/2019	2/21	420	--	70	--	NS	--	NS	--
Copper	7440-50-8	Surface Water	µg/L	0.42	1.1	LSW-03-F_05/16/2019	19/21	7	--	5	--	13.44	--	9.47	--
Iron	7439-89-6	Surface Water	µg/L	35.7	518	LSW-06-F_05/16/2019	7/21	NS	--	1,000	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Ecological Benchmarks (RG-263b)				Texas Surface Water Quality Standards [3,4]			
								Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Aquatic Life Protection Freshwater Acute	Aquatic Life Protection Freshwater Acute Exceedance [6]	Aquatic Life Protection Freshwater Chronic	Aquatic Life Protection Freshwater Chronic Exceedance [6]
Lead	7439-92-1	Surface Water	µg/L	0.03	0.12	LSW-06-F_05/16/2019	6/21	30	--	1	--	64.58	--	2.52	--
Magnesium	7439-95-4	Surface Water	µg/L	1,940	4,620	LSW-04-F_05/16/2019	21/21	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Surface Water	µg/L	19.6	1,680	LSW-02-F_05/14/2019	21/21	2,370	--	1,310	1.28E+00	NS	--	NS	--
Mercury	7439-97-6	Surface Water	µg/L	ND	ND	--	0/21	2.4	--	1.3	--	2.4	--	1.3	--
Nickel	7440-02-0	Surface Water	µg/L	2.7	5.8	LSW-02-F_05/14/2019	19/21	260	--	28.93	--	468.25	--	52.01	--
Potassium	7440-09-7	Surface Water	µg/L	2,070	6,610	LSW-06-F_05/16/2019	21/21	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Surface Water	µg/L	0.52	2.4	LSW-07-F_05/16/2019	19/21	20	--	5	--	20	--	5	--
Silver	7440-22-4	Surface Water	µg/L	ND	ND	--	0/21	1	--	0.1	--	0.8	--	NS	--
Sodium	7440-23-5	Surface Water	µg/L	10,200	23,400	LSW-14-F_05/17/2019	19/21	NS	--	NS	--	NS	--	NS	--
Thallium	7440-28-0	Surface Water	µg/L	ND	ND	--	0/21	540	--	180	--	NS	--	NS	--
Vanadium	7440-62-2	Surface Water	µg/L	0.16	2.3	LSW-03-F_05/16/2019	19/21	284	--	20	--	NS	--	NS	--
Zinc	7440-66-6	Surface Water	µg/L	0.96	4.6	LSW-16-F_05/14/2019	19/21	65.1	--	65.7	--	117.18	--	118.14	--
Cyanide (ISM02.4)															
Cyanide	57-12-5	Surface Water	µg/L	32.9	32.9	LSW-08_05/16/2019	1/30	45.8	--	10.7	3.07E+00	45.8	--	10.7	3.07E+00
Volatile Organic Compounds (OLM04.2)															
1,1,1-Trichloroethane	71-55-6	Surface Water	µg/L	ND	ND	--	0/2	14,720	--	4,910	--	NS	--	NS	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Water	µg/L	ND	ND	--	0/2	2,790	--	465	--	NS	--	NS	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Water	µg/L	ND	ND	--	0/2	1,239	--	207	--	NS	--	NS	--
1,1,2-Trichloroethane	79-00-5	Surface Water	µg/L	ND	ND	--	0/2	5,400	--	900	--	NS	--	NS	--
1,1-Dichloroethane	75-34-3	Surface Water	µg/L	ND	ND	--	0/2	640	--	210	--	NS	--	NS	--
1,1-Dichloroethene	75-35-4	Surface Water	µg/L	ND	ND	--	0/2	9,080	--	3,030	--	NS	--	NS	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
1,2-Dibromoethane	106-93-4	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
1,2-Dichloroethane	107-06-2	Surface Water	µg/L	ND	ND	--	0/2	37,680	--	12,560	--	NS	--	NS	--
1,2-Dichloropropane	78-87-5	Surface Water	µg/L	ND	ND	--	0/2	17,960	--	5,990	--	NS	--	NS	--
2-Butanone	78-93-3	Surface Water	µg/L	ND	ND	--	0/2	254,420	--	42,400	--	NS	--	NS	--
2-Hexanone	591-78-6	Surface Water	µg/L	ND	ND	--	0/2	36,790	--	6,130	--	NS	--	NS	--
4-Methyl-2-pentanone	108-10-1	Surface Water	µg/L	ND	ND	--	0/2	158,100	--	26,400	--	NS	--	NS	--
Acetone	67-64-1	Surface Water	µg/L	6.4	9.4	LSW-09_05/15/2019	2/2	607,400	--	101,200	--	NS	--	NS	--
Benzene	71-43-2	Surface Water	µg/L	ND	ND	--	0/2	2,300	--	130	--	NS	--	NS	--
Bromodichloromethane	75-27-4	Surface Water	µg/L	ND	ND	--	0/2	12,962	--	2,160	--	NS	--	NS	--
Bromoform	75-25-2	Surface Water	µg/L	ND	ND	--	0/2	897	--	149	--	NS	--	NS	--
Bromomethane	74-83-9	Surface Water	µg/L	ND	ND	--	0/2	660	--	110	--	NS	--	NS	--
Carbon disulfide	75-15-0	Surface Water	µg/L	ND	ND	--	0/2	700	--	105	--	NS	--	NS	--
Carbon tetrachloride	56-23-5	Surface Water	µg/L	ND	ND	--	0/2	180	--	9.8	--	NS	--	NS	--
Chlorobenzene	108-90-7	Surface Water	µg/L	ND	ND	--	0/2	1,100	--	64	--	NS	--	NS	--
Chloroethane	75-00-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Chloroform	67-66-3	Surface Water	µg/L	ND	ND	--	0/2	5,370	--	1,790	--	NS	--	NS	--
Chloromethane	74-87-3	Surface Water	µg/L	ND	ND	--	0/2	165,000	--	28,000	--	NS	--	NS	--
cis-1,2-dichloroethene	156-59-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
cis-1,3-dichloropropene	10061-01-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Cyclohexane	110-82-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Dibromochloromethane	124-48-1	Surface Water	µg/L	ND	ND	--	0/2	771	--	129	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Ecological Benchmarks (RG-263b)				Texas Surface Water Quality Standards [3,4]			
								Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Aquatic Life Protection Freshwater Acute	Aquatic Life Protection Freshwater Acute Exceedance [6]	Aquatic Life Protection Freshwater Chronic	Aquatic Life Protection Freshwater Chronic Exceedance [6]
Dichlorodifluoromethane	75-71-8	Surface Water	µg/L	ND	ND	--	0/2	11,780	--	1,963	--	NS	--	NS	--
Ethylbenzene	100-41-4	Surface Water	µg/L	ND	ND	--	0/2	3,000	--	1,000	--	NS	--	NS	--
Isopropylbenzene	98-82-8	Surface Water	µg/L	ND	ND	--	0/2	1,530	--	255	--	NS	--	NS	--
m,p-Xylene	179601-23-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Methyl acetate	79-20-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Methyl tert-butyl ether	1634-04-4	Surface Water	µg/L	ND	ND	--	0/2	151,000	--	51,000	--	NS	--	NS	--
Methylcyclohexane	108-87-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Methylene Chloride	75-09-2	Surface Water	µg/L	ND	ND	--	0/2	66,000	--	22,000	--	NS	--	NS	--
o-Xylene	95-47-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Styrene	100-42-5	Surface Water	µg/L	ND	ND	--	0/2	7,515	--	1,250	--	NS	--	NS	--
Tetrachloroethene	127-18-4	Surface Water	µg/L	ND	ND	--	0/2	3,840	--	1,280	--	NS	--	NS	--
Toluene	108-88-3	Surface Water	µg/L	ND	ND	--	0/2	10,210	--	3,400	--	NS	--	NS	--
trans-1,2-dichloroethene	156-60-5	Surface Water	µg/L	ND	ND	--	0/2	66,000	--	22,000	--	NS	--	NS	--
trans-1,3-dichloropropene	10061-02-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Trichloroethene	79-01-6	Surface Water	µg/L	ND	ND	--	0/2	9,000	--	3,000	--	NS	--	NS	--
Trichlorofluoromethane	75-69-4	Surface Water	µg/L	ND	ND	--	0/2	5,225	--	871	--	NS	--	NS	--
Vinyl chloride	75-01-4	Surface Water	µg/L	ND	ND	--	0/2	16,900	--	2,820	--	NS	--	NS	--
Semivolatile Organic Compounds (OLM04.2)															
1,1'-Biphenyl	92-52-4	Surface Water	µg/L	ND	ND	--	0/2	NS	--	14	--	NS	--	NS	--
1,2,4-Trichlorobenzene	120-82-1	Surface Water	µg/L	ND	ND	--	0/2	309	--	51.5	--	NS	--	NS	--
1,2-Dichlorobenzene	95-50-1	Surface Water	µg/L	ND	ND	--	0/2	660	--	110	--	NS	--	NS	--
1,3-Dichlorobenzene	541-73-1	Surface Water	µg/L	ND	ND	--	0/2	153	--	85	--	NS	--	NS	--
1,4-Dichlorobenzene	106-46-7	Surface Water	µg/L	ND	ND	--	0/2	660	--	110	--	NS	--	NS	--
1-Methylnaphthalene	90-12-0	Surface Water	µg/L	ND	ND	--	0/2	37	--	2.1	--	NS	--	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Water	µg/L	ND	ND	--	0/2	37,847	--	6,308	--	NS	--	NS	--
2,4,5-Trichlorophenol	95-95-4	Surface Water	µg/L	ND	ND	--	0/2	136	--	64	--	136	--	64	--
2,4,6-Trichlorophenol	88-06-2	Surface Water	µg/L	ND	ND	--	0/2	81	--	13.5	--	NS	--	NS	--
2,4-Dichlorophenol	120-83-2	Surface Water	µg/L	ND	ND	--	0/2	510	--	85	--	NS	--	NS	--
2,4-Dimethylphenol	105-67-9	Surface Water	µg/L	ND	ND	--	0/2	630	--	105	--	NS	--	NS	--
2,4-Dinitrophenol	51-28-5	Surface Water	µg/L	ND	ND	--	0/2	186	--	31	--	NS	--	NS	--
2,4-Dinitrotoluene	121-14-2	Surface Water	µg/L	ND	ND	--	0/2	7,290	--	1,220	--	NS	--	NS	--
2,6-Dinitrotoluene	606-20-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
2-Chloronaphthalene	91-58-7	Surface Water	µg/L	ND	ND	--	0/2	323	--	54	--	NS	--	NS	--
2-Chlorophenol	95-57-8	Surface Water	µg/L	ND	ND	--	0/2	780	--	130	--	NS	--	NS	--
2-Methylnaphthalene	91-57-6	Surface Water	µg/L	ND	ND	--	0/2	380	--	63	--	NS	--	NS	--
2-Methylphenol	95-48-7	Surface Water	µg/L	ND	ND	--	0/2	3,360	--	560	--	NS	--	NS	--
2-Nitroaniline	88-74-4	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
2-Nitrophenol	88-75-5	Surface Water	µg/L	ND	ND	--	0/2	5,753	--	959	--	NS	--	NS	--
3&4-methylphenol	34MP	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
3,3'-Dichlorobenzidine	91-94-1	Surface Water	µg/L	ND	ND	--	0/2	315	--	53	--	NS	--	NS	--
3-Nitroaniline	99-09-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Water	µg/L	ND	ND	--	0/2	69	--	12	--	NS	--	NS	--
4-Bromophenyl phenyl ether	101-55-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	1.5	--	NS	--	NS	--

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Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Ecological Benchmarks (RG-263b)				Texas Surface Water Quality Standards [3,4]			
								Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Aquatic Life Protection Freshwater Acute	Aquatic Life Protection Freshwater Acute Exceedance [6]	Aquatic Life Protection Freshwater Chronic	Aquatic Life Protection Freshwater Chronic Exceedance [6]
4-chloro-3-methylphenol	59-50-7	Surface Water	µg/L	ND	ND	--	0/2	600	--	100	--	NS	--	NS	--
4-Chloroaniline	106-47-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
4-Nitrophenol	100-02-7	Surface Water	µg/L	ND	ND	--	0/2	3,193	--	532	--	NS	--	NS	--
Acenaphthene	83-32-9	Surface Water	µg/L	ND	ND	--	0/2	80	--	23	--	NS	--	NS	--
Acenaphthylene	208-96-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Acetophenone	98-86-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Anthracene	120-12-7	Surface Water	µg/L	ND	ND	--	0/2	1.94	--	0.0645	--	NS	--	NS	--
Atrazine	1912-24-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	1.8	--	NS	--	NS	--
Benzaldehyde	100-52-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Benzo[a]anthracene	56-55-3	Surface Water	µg/L	ND	ND	--	0/2	29	--	0.97	--	NS	--	NS	--
Benzo[a]pyrene	50-32-8	Surface Water	µg/L	ND	ND	--	0/2	0.24	--	0.014	--	NS	--	NS	--
Benzo[b]fluoranthene	205-99-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Benzo[g,h,i]perylene	191-24-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Benzo[k]fluoranthene	207-08-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Benzyl alcohol	100-51-6	Surface Water	µg/L	ND	ND	--	0/2	150	--	8.6	--	NS	--	NS	--
Benzyl butyl phthalate	85-68-7	Surface Water	µg/L	ND	ND	--	0/2	560	--	93	--	NS	--	NS	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Bis(2-chloroethyl) ether	111-44-4	Surface Water	µg/L	ND	ND	--	0/2	72,000	--	12,000	--	NS	--	NS	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Water	µg/L	ND	ND	--	0/2	60	--	20	--	NS	--	NS	--
Caprolactam	105-60-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Carbazole	86-74-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Chrysene	218-01-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Dibenz[a,h]anthracene	53-70-3	Surface Water	µg/L	ND	ND	--	0/2	0.3	--	0.01	--	NS	--	NS	--
Dibenzofuran	132-64-9	Surface Water	µg/L	ND	ND	--	0/2	562	--	94	--	NS	--	NS	--
Diethyl phthalate	84-66-2	Surface Water	µg/L	ND	ND	--	0/2	6,259	--	1,043	--	NS	--	NS	--
Dimethyl phthalate	131-11-3	Surface Water	µg/L	ND	ND	--	0/2	9,900	--	1,650	--	NS	--	NS	--
di-n-Butyl phthalate	84-74-2	Surface Water	µg/L	ND	ND	--	0/2	221	--	7	--	NS	--	NS	--
Di-n-octyl phthalate	117-84-0	Surface Water	µg/L	ND	ND	--	0/2	671	--	22	--	NS	--	NS	--
Fluoranthene	206-44-0	Surface Water	µg/L	ND	ND	--	0/2	33.58	--	6.156	--	NS	--	NS	--
Fluorene	86-73-7	Surface Water	µg/L	ND	ND	--	0/2	64	--	11	--	NS	--	NS	--
Hexachlorobenzene	118-74-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Hexachlorobutadiene	87-68-3	Surface Water	µg/L	ND	ND	--	0/2	131	--	4.36	--	NS	--	NS	--
Hexachlorocyclopentadiene	77-47-4	Surface Water	µg/L	ND	ND	--	0/2	2.1	--	0.7	--	NS	--	NS	--
Hexachloroethane	67-72-1	Surface Water	µg/L	ND	ND	--	0/2	210	--	12	--	NS	--	NS	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Isophorone	78-59-1	Surface Water	µg/L	ND	ND	--	0/2	36,000	--	6,000	--	NS	--	NS	--
Naphthalene	91-20-3	Surface Water	µg/L	ND	ND	--	0/2	1,480	--	250	--	NS	--	NS	--
Nitrobenzene	98-95-3	Surface Water	µg/L	ND	ND	--	0/2	3,300	--	1,100	--	NS	--	NS	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Water	µg/L	ND	ND	--	0/2	600	--	20	--	NS	--	NS	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Water	µg/L	ND	ND	--	0/2	3.19	--	2.45	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Ecological Benchmarks (RG-263b)				Texas Surface Water Quality Standards [3,4]			
								Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Aquatic Life Protection Freshwater Acute	Aquatic Life Protection Freshwater Acute Exceedance [6]	Aquatic Life Protection Freshwater Chronic	Aquatic Life Protection Freshwater Chronic Exceedance [6]
Phenanthrene	85-01-8	Surface Water	µg/L	ND	ND	--	0/2	30	--	30	--	30	--	30	--
Phenol	108-95-2	Surface Water	µg/L	ND	ND	--	0/2	3,600	--	110	--	NS	--	NS	--
Pyrene	129-00-0	Surface Water	µg/L	ND	ND	--	0/2	206	--	7	--	NS	--	NS	--
PFAS (E537.0M)															
Perfluorobutanesulfonic acid	375-73-5	Surface Water	µg/L	0.0034	0.026	LSW-09_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorobutanoic acid	375-22-4	Surface Water	µg/L	0.008	0.022	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Water	µg/L	0.0017	0.015	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Water	µg/L	0.0029	0.071	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Water	µg/L	0.013	0.036	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Water	µg/L	0.0013	0.0013	LSW-01_05/15/2019	1/3	NS	--	NS	--	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Water	µg/L	0.0043	0.032	LSW-01_05/15/2019	3/3	21	--	5.1	--	NS	--	NS	--
Perfluorooctanoic acid	335-67-1	Surface Water	µg/L	0.00083	0.01	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Water	µg/L	0.024	0.046	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--	NS	--
PCB Aroclors (OLM04.2)															
Aroclor 1016	12674-11-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Aroclor 1221	11104-28-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Aroclor 1232	11141-16-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Aroclor 1242	53469-21-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Aroclor 1248	12672-29-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Aroclor 1254	11097-69-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Aroclor 1260	11096-82-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Total Petroleum Hyrdrocarbons (TX1005)															
TPH (C12-C28)	TPHC12C28	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
TPH (C6-C28)	TPHC6C28	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
TPH (C6-C12)	TPHC6C12	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
TPH (C28-C35)	TPHC28C35	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	TRRP Ecological Benchmarks (RG-263b)				Texas Surface Water Quality Standards [3,4]			
								Aquatic Life Freshwater Acute	Aquatic Life Freshwater Acute Exceedance [6]	Aquatic Life Freshwater Chronic	Aquatic Life Freshwater Chronic Exceedance [6]	Aquatic Life Protection Freshwater Acute	Aquatic Life Protection Freshwater Acute Exceedance [6]	Aquatic Life Protection Freshwater Chronic	Aquatic Life Protection Freshwater Chronic Exceedance [6]

Notes:

1. EPA Region 6 Regional Screening Levels (RSLs) for Tapwater (May 2020) for hazard index = 1.0 for non-carcinogens and a 10-6 cancer risk level for carcinogens.
RSL surrogates used: Chromium (VI) for Chromium, Methyl Mercury for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. EPA National Recommended Water Quality Criteria (accessed May 2020 at https://www.epa.gov/wqc/national-recommended-water-quality-criteria).
3. TCEQ Texas Surface Water Quality Standards (TCEQ 2018)
4. Texas Surface Water Quality Standards aquatic life protection values for cadmium, copper, chromium, lead, nickel, and zinc are hardness dependent and were calculated assuming a hardness of 100 mg/L as CaCO3.
5. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (not specified).

6. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
7. National Recommended Water Quality criteria for aluminum is for a pH range of 6.5-9.0.
8. Cadmium fresh water values are hardness dependent and were calculated assuming a hardness of 100 mg/L as CaCO3.
-- = Not applicable.
µg/L = Microgram per liter.
NS = No screening level.
ND = Not detected.

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Texas Surface Water Quality Standards [3,4]				Project Screening Level [5]	Project Screening Level Exceedance [6]
								Human Health for Water and Fish Consumption	Human Health for Water and Fish Consumption Exceedance [6]	Human Health for Fish Only Consumption	Human Health for Fish Only Consumption Exceedance [6]		
Total Metals (ILM05.3/ISM02.4)													
Aluminum [7]	7429-90-5	Surface Water	µg/L	70	23,200	SW-04_07/20/2016	25/32	NS	--	NS	--	87	2.67E+02
Antimony	7440-36-0	Surface Water	µg/L	ND	ND	--	0/32	6	--	1,071	--	6	--
Arsenic	7440-38-2	Surface Water	µg/L	1.2	17.6	SW-04_07/20/2016	29/32	10	1.76E+00	10	1.76E+00	0.14	1.26E+02
Barium	7440-39-3	Surface Water	µg/L	47.5	376	SW-04_07/20/2016	32/32	2,000	--	NS	--	1,600	--
Beryllium	7440-41-7	Surface Water	µg/L	ND	ND	--	0/32	NS	--	NS	--	5.3	--
Bismuth	7440-69-9	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--
Cadmium [8]	7440-43-9	Surface Water	µg/L	ND	ND	--	0/32	5	--	NS	--	0.15	--
Calcium	7440-70-2	Surface Water	µg/L	50,800	408,000	SW-04_07/20/2016	32/32	NS	--	NS	--	NS	--
Chromium	7440-47-3	Surface Water	µg/L	51.3	51.3	SW-04_07/20/2016	1/32	NS	--	NS	--	0	1.47E+02
Cobalt	7440-48-4	Surface Water	µg/L	0.52	3.5	LSW-02_05/14/2019	4/32	NS	--	NS	--	6	--
Copper	7440-50-8	Surface Water	µg/L	0.47	41.2	SW-04_07/20/2016	5/32	1,300	--	NS	--	5.24	7.86E+00
Indium	7440-74-6	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--
Iron	7439-89-6	Surface Water	µg/L	186	25,400	SW-04_07/20/2016	32/32	NS	--	NS	--	1,000	2.54E+01
Lead	7439-92-1	Surface Water	µg/L	0.2	139	SW-04_07/20/2016	13/32	1.15	1.21E+02	3.83	3.63E+01	1.15	1.21E+02
Magnesium	7439-95-4	Surface Water	µg/L	1,980	9,200	SW-04_07/20/2016	32/32	NS	--	NS	--	NS	--
Manganese	7439-96-5	Surface Water	µg/L	47.6	2,730	SW-04_07/20/2016	32/32	50	5.46E+01	100	2.73E+01	50	5.46E+01
Mercury	7439-97-6	Surface Water	µg/L	0.357	0.357	SW-04_07/20/2016	1/32	0.0122	2.93E+01	0.0122	2.93E+01	0.012	2.93E+01
Nickel	7440-02-0	Surface Water	µg/L	2.9	42.6	SW-04_07/20/2016	19/32	332	--	1,140	--	28.93	1.47E+00
Potassium	7440-09-7	Surface Water	µg/L	2,050	6,650	LSW-06_05/16/2019	18/32	NS	--	NS	--	NS	--
Scandium-46	13967-63-0	Surface Water	µg/L	ND	ND	--	0/12	NS	--	NS	--	NS	--
Selenium	7782-49-2	Surface Water	µg/L	0.47	1.9	LSW-04_05/16/2019, LSW-05_05/16/2019	18/32	50	--	4,200	--	5	--
Silver	7440-22-4	Surface Water	µg/L	ND	ND	--	0/32	NS	--	NS	--	0.1	--
Sodium	7440-23-5	Surface Water	µg/L	2,260	79,000	SW-11_07/18/2016	32/32	NS	--	NS	--	NS	--
Thallium	7440-28-0	Surface Water	µg/L	ND	ND	--	0/32	0.12	--	0.23	--	0.12	--
Vanadium	7440-62-2	Surface Water	µg/L	0.29	75.9	SW-04_07/20/2016	19/32	NS	--	NS	--	20	3.80E+00
Zinc	7440-66-6	Surface Water	µg/L	1.5	239	SW-04_07/20/2016	20/32	7,400	--	26,000	--	65.1	3.67E+00
Total Hexavalent Chromium (E218.6)												NS	
Chromium (hexavalent)	18540-29-9	Surface Water	µg/L	0.2	0.2	LSW-21_01/13/2020	1/20	62	--	502	--	0.4	--
Dissolved Metals (ILM05.3/ISM02.4)												NS	
Aluminum [7]	7429-90-5	Surface Water	µg/L	115	115	LSW-06-F_05/16/2019	1/21	NS	--	NS	--	87	1.32E+00
Antimony	7440-36-0	Surface Water	µg/L	ND	ND	--	0/21	6	--	1,071	--	6	--
Arsenic	7440-38-2	Surface Water	µg/L	0.92	4.7	LSW-02-F_05/14/2019	19/21	10	--	10	--	0.14	3.36E+01
Barium	7440-39-3	Surface Water	µg/L	46.4	120	LSW-02-F_05/14/2019	21/21	2,000	--	NS	--	1,600	--
Beryllium	7440-41-7	Surface Water	µg/L	ND	ND	--	0/21	NS	--	NS	--	5.3	--
Cadmium [8]	7440-43-9	Surface Water	µg/L	ND	ND	--	0/21	5	--	NS	--	0.15	--
Calcium	7440-70-2	Surface Water	µg/L	60,800	189,000	LSW-04-F_05/16/2019	21/21	NS	--	NS	--	NS	--
Chromium	7440-47-3	Surface Water	µg/L	ND	ND	--	0/21	NS	--	NS	--	0	--
Cobalt	7440-48-4	Surface Water	µg/L	1.3	3.7	LSW-02-F_05/14/2019	2/21	NS	--	NS	--	6	--
Copper	7440-50-8	Surface Water	µg/L	0.42	1.1	LSW-03-F_05/16/2019	19/21	1,300	--	NS	--	5.24	--
Iron	7439-89-6	Surface Water	µg/L	35.7	518	LSW-06-F_05/16/2019	7/21	NS	--	NS	--	1,000	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Texas Surface Water Quality Standards [3,4]				Project Screening Level [5]	Project Screening Level Exceedance [6]
								Human Health for Water and Fish Consumption	Human Health for Water and Fish Consumption Exceedance [6]	Human Health for Fish Only Consumption	Human Health for Fish Only Consumption Exceedance [6]		
Lead	7439-92-1	Surface Water	µg/L	0.03	0.12	LSW-06-F_05/16/2019	6/21	1.15	--	3.83	--	1.15	--
Magnesium	7439-95-4	Surface Water	µg/L	1,940	4,620	LSW-04-F_05/16/2019	21/21	NS	--	NS	--	NS	--
Manganese	7439-96-5	Surface Water	µg/L	19.6	1,680	LSW-02-F_05/14/2019	21/21	50	3.36E+01	100	1.68E+01	50	3.36E+01
Mercury	7439-97-6	Surface Water	µg/L	ND	ND	--	0/21	0.012	--	0.012	--	0.012	--
Nickel	7440-02-0	Surface Water	µg/L	2.7	5.8	LSW-02-F_05/14/2019	19/21	332	--	1,140	--	28.9	--
Potassium	7440-09-7	Surface Water	µg/L	2,070	6,610	LSW-06-F_05/16/2019	21/21	NS	--	NS	--	NS	--
Selenium	7782-49-2	Surface Water	µg/L	0.52	2.4	LSW-07-F_05/16/2019	19/21	50	--	4,200	--	5.0	--
Silver	7440-22-4	Surface Water	µg/L	ND	ND	--	0/21	NS	--	NS	--	0.1	--
Sodium	7440-23-5	Surface Water	µg/L	10,200	23,400	LSW-14-F_05/17/2019	19/21	NS	--	NS	--	NS	--
Thallium	7440-28-0	Surface Water	µg/L	ND	ND	--	0/21	0.12	--	0.23	--	0.12	--
Vanadium	7440-62-2	Surface Water	µg/L	0.16	2.3	LSW-03-F_05/16/2019	19/21	NS	--	NS	--	20	--
Zinc	7440-66-6	Surface Water	µg/L	0.96	4.6	LSW-16-F_05/14/2019	19/21	7,400	--	26,000	--	65.1	--
Cyanide (ISM02.4)												NS	
Cyanide	57-12-5	Surface Water	µg/L	32.9	32.9	LSW-08_05/16/2019	1/30	4	8.23E+00	400	--	1.500	2.19E+01
Volatile Organic Compounds (OLM04.2)												NS	
1,1,1-Trichloroethane	71-55-6	Surface Water	µg/L	ND	ND	--	0/2	200	--	784,354	--	200	--
1,1,2,2-tetrachloroethane	79-34-5	Surface Water	µg/L	ND	ND	--	0/2	1.64	--	26.35	--	0.760	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	207	--
1,1,2-Trichloroethane	79-00-5	Surface Water	µg/L	ND	ND	--	0/2	5	--	166	--	0	--
1,1-Dichloroethane	75-34-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	28	--
1,1-Dichloroethene	75-35-4	Surface Water	µg/L	ND	ND	--	0/2	7	--	55,114	--	7	--
1,2-Dibromo-3-chloropropane	96-12-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.003	--
1,2-Dibromoethane	106-93-4	Surface Water	µg/L	ND	ND	--	0/2	0.17	--	4.24	--	0.08	--
1,2-Dichloroethane	107-06-2	Surface Water	µg/L	ND	ND	--	0/2	5	--	364	--	2	--
1,2-Dichloropropane	78-87-5	Surface Water	µg/L	ND	ND	--	0/2	5	--	259	--	1	--
2-Butanone	78-93-3	Surface Water	µg/L	ND	ND	--	0/2	13,865	--	992,000	--	5,600	--
2-Hexanone	591-78-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	38.000	--
4-Methyl-2-pentanone	108-10-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	6,300	--
Acetone	67-64-1	Surface Water	µg/L	6.4	9.4	LSW-09_05/15/2019	2/2	NS	--	NS	--	14,000	--
Benzene	71-43-2	Surface Water	µg/L	ND	ND	--	0/2	5	--	581	--	5	--
Bromodichloromethane	75-27-4	Surface Water	µg/L	ND	ND	--	0/2	10.2	--	275	--	1.3	--
Bromoform	75-25-2	Surface Water	µg/L	ND	ND	--	0/2	66.9	--	1,060	--	33.0	--
Bromomethane	74-83-9	Surface Water	µg/L	ND	ND	--	0/2	100	--	10,000	--	8	--
Carbon disulfide	75-15-0	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	105	--
Carbon tetrachloride	56-23-5	Surface Water	µg/L	ND	ND	--	0/2	4.5	--	46	--	4.500	--
Chlorobenzene	108-90-7	Surface Water	µg/L	ND	ND	--	0/2	100	--	2,737	--	64	--
Chloroethane	75-00-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	21,000	--
Chloroform	67-66-3	Surface Water	µg/L	ND	ND	--	0/2	70	--	7,697	--	2	--
Chloromethane	74-87-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	190.000	--
cis-1,2-dichloroethene	156-59-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	36.000	--
cis-1,3-dichloropropene	10061-01-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	4.700	--
Cyclohexane	110-82-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	13,000	--
Dibromochloromethane	124-48-1	Surface Water	µg/L	ND	ND	--	0/2	7.5	--	183	--	7.5	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Texas Surface Water Quality Standards [3,4]				Project Screening Level [5]	Project Screening Level Exceedance [6]
								Human Health for Water and Fish Consumption	Human Health for Water and Fish Consumption Exceedance [6]	Human Health for Fish Only Consumption	Human Health for Fish Only Consumption Exceedance [6]		
Dichlorodifluoromethane	75-71-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	200.000	--
Ethylbenzene	100-41-4	Surface Water	µg/L	ND	ND	--	0/2	700	--	1,867	--	15	--
Isopropylbenzene	98-82-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	255	--
m,p-Xylene	179601-23-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	190.000	--
Methyl acetate	79-20-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	20,000	--
Methyl tert-butyl ether	1634-04-4	Surface Water	µg/L	ND	ND	--	0/2	15	--	10,482	--	15	--
Methylcyclohexane	108-87-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	13,000	--
Methylene Chloride	75-09-2	Surface Water	µg/L	ND	ND	--	0/2	5	--	13,333	--	5	--
o-Xylene	95-47-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	190.000	--
Styrene	100-42-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1,200	--
Tetrachloroethene	127-18-4	Surface Water	µg/L	ND	ND	--	0/2	5	--	280	--	5	--
Toluene	108-88-3	Surface Water	µg/L	ND	ND	--	0/2	1,000	--	1,000	--	520	--
trans-1,2-dichloroethene	156-60-5	Surface Water	µg/L	ND	ND	--	0/2	100	--	4,000	--	100	--
trans-1,3-dichloropropene	10061-02-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	4.700	--
Trichloroethene	79-01-6	Surface Water	µg/L	ND	ND	--	0/2	5	--	71.9	--	0	--
Trichlorofluoromethane	75-69-4	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	871	--
Vinyl chloride	75-01-4	Surface Water	µg/L	ND	ND	--	0/2	0.23	--	16.5	--	0.19	--
Semivolatile Organic Compounds (OLM04.2)												NS	
1,1'-Biphenyl	92-52-4	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1	--
1,2,4-Trichlorobenzene	120-82-1	Surface Water	µg/L	ND	ND	--	0/2	0.07	--	0.076	--	0.07	--
1,2-Dichlorobenzene	95-50-1	Surface Water	µg/L	ND	ND	--	0/2	600	--	3,299	--	110	--
1,3-Dichlorobenzene	541-73-1	Surface Water	µg/L	ND	ND	--	0/2	322	--	595	--	10	--
1,4-Dichlorobenzene	106-46-7	Surface Water	µg/L	ND	ND	--	0/2	75	--	900	--	5	--
1-Methylnaphthalene	90-12-0	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	2.1	--
2,2-oxybis(1-chloropropane)	108-60-1	Surface Water	µg/L	ND	ND	--	0/2	200	--	4,000	--	200	--
2,4,5-Trichlorophenol	95-95-4	Surface Water	µg/L	ND	ND	--	0/2	1,039	--	1,867	--	64	--
2,4,6-Trichlorophenol	88-06-2	Surface Water	µg/L	ND	ND	--	0/2	15	--	28	--	2.8	--
2,4-Dichlorophenol	120-83-2	Surface Water	µg/L	ND	ND	--	0/2	10	--	60	--	10	--
2,4-Dimethylphenol	105-67-9	Surface Water	µg/L	ND	ND	--	0/2	444	--	8,436	--	105	--
2,4-Dinitrophenol	51-28-5	Surface Water	µg/L	ND	ND	--	0/2	10	--	300	--	10	--
2,4-Dinitrotoluene	121-14-2	Surface Water	µg/L	ND	ND	--	0/2	0.49	--	17	--	0.49	--
2,6-Dinitrotoluene	606-20-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.490	--
2-Chloronaphthalene	91-58-7	Surface Water	µg/L	ND	ND	--	0/2	800	--	1,000	--	54	--
2-Chlorophenol	95-57-8	Surface Water	µg/L	ND	ND	--	0/2	30	--	800	--	30	--
2-Methylnaphthalene	91-57-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	36	--
2-Methylphenol	95-48-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	560	--
2-Nitroaniline	88-74-4	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	190.000	--
2-Nitrophenol	88-75-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	959	--
3&4-methylphenol	34MP	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	930.000	--
3,3'-Dichlorobenzidine	91-94-1	Surface Water	µg/L	ND	ND	--	0/2	0.79	--	2.24	--	0.15	--
3-Nitroaniline	99-09-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Surface Water	µg/L	ND	ND	--	0/2	2	--	30	--	2	--
4-Bromophenyl phenyl ether	101-55-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1.5	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Texas Surface Water Quality Standards [3,4]				Project Screening Level [5]	Project Screening Level Exceedance [6]
								Human Health for Water and Fish Consumption	Human Health for Water and Fish Consumption Exceedance [6]	Human Health for Fish Only Consumption	Human Health for Fish Only Consumption Exceedance [6]		
4-chloro-3-methylphenol	59-50-7	Surface Water	µg/L	ND	ND	--	0/2	500	--	2,000	--	100	--
4-Chloroaniline	106-47-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	3.700	--
4-Chlorophenyl phenyl ether	7005-72-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--
4-Nitroaniline	100-01-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	38.000	--
4-Nitrophenol	100-02-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	532	--
Acenaphthene	83-32-9	Surface Water	µg/L	ND	ND	--	0/2	70	--	90	--	23	--
Acenaphthylene	208-96-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	530.000	--
Acetophenone	98-86-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1,900	--
Anthracene	120-12-7	Surface Water	µg/L	ND	ND	--	0/2	1,109	--	1,317	--	0.065	--
Atrazine	1912-24-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1.8	--
Benzaldehyde	100-52-7	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	190.000	--
Benzo[a]anthracene	56-55-3	Surface Water	µg/L	ND	ND	--	0/2	0.024	--	0.025	--	0.0013	--
Benzo[a]pyrene	50-32-8	Surface Water	µg/L	ND	ND	--	0/2	0.0025	--	0.0025	--	0.00013	--
Benzo[b]fluoranthene	205-99-2	Surface Water	µg/L	ND	ND	--	0/2	0.012	--	0.013	--	0.001	--
Benzo[g,h,i]perylene	191-24-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	120.000	--
Benzo[k]fluoranthene	207-08-9	Surface Water	µg/L	ND	ND	--	0/2	0.12	--	0.13	--	0.013	--
Benzyl alcohol	100-51-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	8.6	--
Benzyl butyl phthalate	85-68-7	Surface Water	µg/L	ND	ND	--	0/2	1	--	1	--	0.1	--
Bis(2-chloroethoxy) methane	111-91-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	59.000	--
Bis(2-chloroethyl) ether	111-44-4	Surface Water	µg/L	ND	ND	--	0/2	0.6	--	42.83	--	0.1	--
Bis(2-ethylhexyl) phthalate	117-81-7	Surface Water	µg/L	ND	ND	--	0/2	6	--	7.55	--	0.37	--
Caprolactam	105-60-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	9,900	--
Carbazole	86-74-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--
Chrysene	218-01-9	Surface Water	µg/L	ND	ND	--	0/2	2.45	--	2.52	--	0.13	--
Dibenz[a,h]anthracene	53-70-3	Surface Water	µg/L	ND	ND	--	0/2	0.0012	--	0.0013	--	0.00013	--
Dibenzofuran	132-64-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	8	--
Diethyl phthalate	84-66-2	Surface Water	µg/L	ND	ND	--	0/2	600	--	600	--	600	--
Dimethyl phthalate	131-11-3	Surface Water	µg/L	ND	ND	--	0/2	2,000	--	2,000	--	1,650	--
di-n-Butyl phthalate	84-74-2	Surface Water	µg/L	ND	ND	--	0/2	88.9	--	92.4	--	7	--
Di-n-octyl phthalate	117-84-0	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	22	--
Fluoranthene	206-44-0	Surface Water	µg/L	ND	ND	--	0/2	20	--	20	--	6.16	--
Fluorene	86-73-7	Surface Water	µg/L	ND	ND	--	0/2	50	--	70	--	11	--
Hexachlorobenzene	118-74-1	Surface Water	µg/L	ND	ND	--	0/2	0.0007	--	0.0007	--	0.00008	--
Hexachlorobutadiene	87-68-3	Surface Water	µg/L	ND	ND	--	0/2	0.21	--	0.22	--	0.01	--
Hexachlorocyclopentadiene	77-47-4	Surface Water	µg/L	ND	ND	--	0/2	10.7	--	11.6	--	0.4	--
Hexachloroethane	67-72-1	Surface Water	µg/L	ND	ND	--	0/2	1.84	--	2.33	--	0.1	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Surface Water	µg/L	ND	ND	--	0/2	0.012	--	0.013	--	0.001	--
Isophorone	78-59-1	Surface Water	µg/L	ND	ND	--	0/2	340	--	18,000	--	340	--
Naphthalene	91-20-3	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1	--
Nitrobenzene	98-95-3	Surface Water	µg/L	ND	ND	--	0/2	45.7	--	1,873	--	1.4	--
n-Nitrosodi-n-propylamine	621-64-7	Surface Water	µg/L	ND	ND	--	0/2	0.05	--	5.1	--	0.05	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--
Pentachlorophenol	87-86-5	Surface Water	µg/L	ND	ND	--	0/2	0.22	--	0.29	--	0.04	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Texas Surface Water Quality Standards [3,4]				Project Screening Level [5]	Project Screening Level Exceedance [6]
								Human Health for Water and Fish Consumption	Human Health for Water and Fish Consumption Exceedance [6]	Human Health for Fish Only Consumption	Human Health for Fish Only Consumption Exceedance [6]		
Phenanthrene	85-01-8	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	30	--
Phenol	108-95-2	Surface Water	µg/L	ND	ND	--	0/2	4,000	--	300,000	--	110	--
Pyrene	129-00-0	Surface Water	µg/L	ND	ND	--	0/2	20	--	30	--	7	--
PFAS (E537.0M)												NS	
Perfluorobutanesulfonic acid	375-73-5	Surface Water	µg/L	0.0034	0.026	LSW-09_05/15/2019	3/3	NS	--	NS	--	400.000	--
Perfluorobutanoic acid	375-22-4	Surface Water	µg/L	0.008	0.022	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Surface Water	µg/L	0.0017	0.015	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Surface Water	µg/L	0.0029	0.071	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Surface Water	µg/L	0.013	0.036	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Surface Water	µg/L	0.0013	0.0013	LSW-01_05/15/2019	1/3	NS	--	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Surface Water	µg/L	0.0043	0.032	LSW-01_05/15/2019	3/3	NS	--	NS	--	5.1	--
Perfluorooctanoic acid	335-67-1	Surface Water	µg/L	0.00083	0.01	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Surface Water	µg/L	0.024	0.046	LSW-01_05/15/2019	3/3	NS	--	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
Perfluorotridecanoic acid	72629-94-8	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Surface Water	µg/L	ND	ND	--	0/3	NS	--	NS	--	NS	--
PCB Aroclors (OLM04.2)												NS	
Aroclor 1016	12674-11-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.220	--
Aroclor 1221	11104-28-2	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.047	--
Aroclor 1232	11141-16-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.047	--
Aroclor 1242	53469-21-9	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.078	--
Aroclor 1248	12672-29-6	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.078	--
Aroclor 1254	11097-69-1	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.078	--
Aroclor 1260	11096-82-5	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	0.078	--
Total Petroleum Hyrdrocarbons (TX1005)												NS	
TPH (C12-C28)	TPHC12C28	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	1,300	--
TPH (C6-C28)	TPHC6C28	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--
TPH (C6-C12)	TPHC6C12	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	5.500	--
TPH (C28-C35)	TPHC28C35	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	800.000	--
TPH (C6-C35)	TPHC6C35	Surface Water	µg/L	ND	ND	--	0/2	NS	--	NS	--	NS	--

Table 5-12 Screening Level Exceedances for Surface Water

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Texas Surface Water Quality Standards [3,4]				Project Screening Level [5]	Project Screening Level Exceedance [6]
								Human Health for Water and Fish Consumption	Human Health for Water and Fish Consumption Exceedance [6]	Human Health for Fish Only Consumption	Human Health for Fish Only Consumption Exceedance [6]		

Notes:

1. EPA Region 6 Regional Screening Levels (RSLs) for Tapwater (May 2020) for hazard index = 1.0 for non-carcinogens and a 10-6 cancer risk level for carcinogens.
RSL surrogates used: Chromium (VI) for Chromium, Methyl Mercury for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. EPA National Recommended Water Quality Criteria (accessed May 2020 at https://www.epa.gov/wqc/national-recommended-water-quality-criteria).
3. TCEQ Texas Surface Water Quality Standards (TCEQ 2018)
4. Texas Surface Water Quality Standards aquatic life protection values for cadmium, copper, chromium, lead, nickel, and zinc are hardness dependent and were calculated assuming a hardness of 100 mg/L as CaCO3.
5. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (not specified).

6. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
7. National Recommended Water Quality criteria for aluminum is for a pH range of 6.5-9.0.
8. Cadmium fresh water values are hardness dependent and were calculated assuming a hardness of 100 mg/L as CaCO3.
-- = Not applicable.
µg/L = Microgram per liter.
NS = No screening level.
ND = Not detected.

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Sediment Screening Levels: EPA Residential Regional Screening Level [1]	EPA Residential RSL Exceedance [7]	TCEQ Ecological Screening Values [2]	TCEQ Ecological Screening Value Exceedance [7]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs [3]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs Exceedance [7]	TCEQ Freshwater Benthic PCLs [2]	TCEQ Freshwater Benthic PCLs Exceedance [7]
Metals (ILM05.3/ISM02.4/SW6010C)															
Aluminum	7429-90-5	Sediment	mg/kg	2,850	18,100	LSED-3-0.0-0.5_05/16/2019	33/33	77,000	--	NS	--	153,091	--	NS	--
Antimony	7440-36-0	Sediment	mg/kg	ND	ND	--	0/33	31	--	0.3	--	83	--	6.15	--
Arsenic[8]	7440-38-2	Sediment	mg/kg	0.5	8	SE-06_07/21/2016	33/33	6.8	1.18E+00	9.79	--	115	--	21.4	--
Barium	7440-39-3	Sediment	mg/kg	41.4	123	LSED-9-0.0-0.5_05/15/2019	33/33	15,000	--	NS	--	22,900	--	NS	--
Beryllium	7440-41-7	Sediment	mg/kg	0.5	0.99	LSED-3-0.0-0.5_05/16/2019	14/33	160	--	NS	--	27	--	NS	--
Bismuth	7440-69-9	Sediment	mg/kg	ND	ND	--	0/13	NS	--	NS	--	NS	--	NS	--
Cadmium	7440-43-9	Sediment	mg/kg	0.55	1	SE-04_07/20/2016	13/33	71	--	0.99	1.01E+00	1,094	--	2.99	--
Calcium	7440-70-2	Sediment	mg/kg	41,900	225,000	LSED-12-0.0-0.5_05/17/2019	33/33	NS	--	NS	--	NS	--	NS	--
Chromium[9]	7440-47-3	Sediment	mg/kg	3.5	87.3	SE-05_07/19/2016	33/33	120,000	--	43.4	2.01E+00	36,460	--	77.2	1.13E+00
Cobalt	7440-48-4	Sediment	mg/kg	2.4	10.4	SE-06_07/21/2016	32/33	23	--	50	--	31,954	--	NS	--
Copper	7440-50-8	Sediment	mg/kg	6.5	30.9	LSED-1-0.0-0.5_05/15/2019	33/33	3,100	--	32	--	21,303	--	90.3	--
Indium	7440-74-6	Sediment	mg/kg	ND	ND	--	0/13	NS	--	NS	--	NS	--	NS	--
Iron	7439-89-6	Sediment	mg/kg	3,040	16,300	LSED-3-0.0-0.5_05/16/2019	33/33	55,000	--	20,000	--	NS	--	30,000	--
Lead	7439-92-1	Sediment	mg/kg	7.3	131	SE-14_07/21/2016	33/33	400	--	36	3.66E+00	500	--	81.9	1.60E+00
Magnesium	7439-95-4	Sediment	mg/kg	495	23,900	LSED-4-0.0-0.5_05/16/2019	33/33	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Sediment	mg/kg	68.1	1,530	SE-06_07/21/2016	33/33	1,800	--	460	3.33E+00	14,028	--	780	1.96E+00
Mercury	7439-97-6	Sediment	mg/kg	0.02	0.271	SE-05_07/19/2016	27/33	7.8	--	0.18	1.51E+00	34.3	--	0.62	--
Nickel	7440-02-0	Sediment	mg/kg	5.9	55.9	LSED-4-0.0-0.5_05/16/2019	33/33	1,500	--	22.7	2.46E+00	1,400	--	35.7	1.57E+00
Potassium	7440-09-7	Sediment	mg/kg	383	2,270	LSED-8-0.0-0.5_05/16/2019	33/33	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Sediment	mg/kg	0.34	0.86	LSED-5-0.0-0.5_05/16/2019	18/33	390	--	NS	--	2,663	--	NS	--
Silver	7440-22-4	Sediment	mg/kg	ND	ND	--	0/33	390	--	0.57	--	350	--	1.14	--
Sodium	7440-23-5	Sediment	mg/kg	71	170	SE-03_07/20/2016, LSED-1-0.0-0.5_05/15/2019	9/33	NS	--	NS	--	22,000	--	NS	--
Thallium	7440-28-0	Sediment	mg/kg	0.4	0.4	SE-06_07/21/2016	1/33	0.78	--	NS	--	35.7	--	NS	--
Vanadium	7440-62-2	Sediment	mg/kg	10.3	40	LSED-3-0.0-0.5_05/16/2019	33/33	390	--	NS	--	84.7	--	NS	--
Zinc	7440-66-6	Sediment	mg/kg	15.2	151	LSED-5-0.0-0.5_05/16/2019	33/33	23,000	--	121	1.25E+00	76,021	--	290	--
Hexavalent Chromium (SW7199)															
Chromium (hexavalent)[8]	18540-29-9	Sediment	mg/kg	0.25	5.1	LSED-9-0.0-0.5_05/15/2019	14/20	3	1.70E+00	NS	--	141	--	NS	--
Cyanide (ISM02.4)															
Cyanide	57-12-5	Sediment	mg/kg	0.034	0.93	SE-05_07/19/2016	19/31	23	--	NS	--	320	--	NS	--
Volatile Organic Compounds (OLM04.2)															
1,1,1-Trichloroethane	71-55-6	Sediment	mg/kg	ND	ND	--	0/2	8,100	--	8.27	--	147,000	--	16.5	--
1,1,2,2-tetrachloroethane	79-34-5	Sediment	mg/kg	ND	ND	--	0/2	6	--	0.63	--	272	--	2.22	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Sediment	mg/kg	ND	ND	--	0/2	6,700	--	2.78	--	1,000,000	--	9.74	--
1,1,2-Trichloroethane	79-00-5	Sediment	mg/kg	ND	ND	--	0/2	11	--	0.98	--	956	--	3.43	--
1,1-Dichloroethane	75-34-3	Sediment	mg/kg	ND	ND	--	0/2	36	--	2.32	--	73,500	--	8.11	--
1,1-Dichloroethene	75-35-4	Sediment	mg/kg	ND	ND	--	0/2	230	--	3.74	--	36,750	--	7.47	--
1,2-Dibromo-3-chloropropane	96-12-8	Sediment	mg/kg	ND	ND	--	0/2	0.053	--	NS	--	17.8	--	NS	--
1,2-Dibromoethane	106-93-4	Sediment	mg/kg	ND	ND	--	0/2	0.36	--	NS	--	6,610	--	NS	--
1,2-Dichloroethane	107-06-2	Sediment	mg/kg	ND	ND	--	0/2	4.6	--	9.56	--	599	--	19.1	--
1,2-Dichloropropane	78-87-5	Sediment	mg/kg	ND	ND	--	0/2	25	--	7.05	--	801	--	14.1	--
2-Butanone	78-93-3	Sediment	mg/kg	ND	ND	--	0/2	27,000	--	25.7	--	440,999	--	90.0	--
2-Hexanone	591-78-6	Sediment	mg/kg	ND	ND	--	0/2	200	--	4.7	--	44,100	--	16.5	--
4-Methyl-2-pentanone	108-10-1	Sediment	mg/kg	ND	ND	--	0/2	33,000	--	19.4	--	58,800	--	68.0	--
Acetone	67-64-1	Sediment	mg/kg	ND	ND	--	0/2	61,000	--	60	--	661,498	--	210	--
Benzene	71-43-2	Sediment	mg/kg	ND	ND	--	0/2	12	--	0.162	--	991	--	1.52	--
Bromodichloromethane	75-27-4	Sediment	mg/kg	ND	ND	--	0/2	2.9	--	2.46	--	879	--	8.60	--
Bromoform	75-25-2	Sediment	mg/kg	ND	ND	--	0/2	190	--	0.22	--	6,899	--	0.765	--
Bromomethane	74-83-9	Sediment	mg/kg	ND	ND	--	0/2	6.8	--	0.08	--	1,029	--	0.27	--
Carbon disulfide	75-15-0	Sediment	mg/kg	ND	ND	--	0/2	770	--	0.12	--	73,500	--	0.45	--
Carbon tetrachloride	56-23-5	Sediment	mg/kg	ND	ND	--	0/2	6.5	--	1.2	--	419	--	11.1	--
Chlorobenzene	108-90-7	Sediment	mg/kg	ND	ND	--	0/2	280	--	0.74	--	14,700	--	1.87	--
Chloroethane	75-00-3	Sediment	mg/kg	ND	ND	--	0/2	14,000	--	NS	--	294,000	--	NS	--

Table 5-13 Screening Level Exceedances for Sediment

								Sediment Screening Levels							
Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	EPA Residential Regional Screening Level [1]	EPA Residential RSL Exceedance [7]	TCEQ Ecological Screening Values [2]	TCEQ Ecological Screening Value Exceedance [7]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs [3]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs Exceedance [7]	TCEQ Freshwater Benthic PCLs [2]	TCEQ Freshwater Benthic PCLs Exceedance [7]
Chloroform	67-66-3	Sediment	mg/kg	ND	ND	--	0/2	3.2	--	1.89	--	7,350	--	3.78	--
Chloromethane	74-87-3	Sediment	mg/kg	ND	ND	--	0/2	110	--	17.8	--	4,192	--	62.3	--
cis-1,2-dichloroethene	156-59-2	Sediment	mg/kg	ND	ND	--	0/2	160	--	NS	--	7,350	--	NS	--
cis-1,3-dichloropropene[10]	10061-01-5	Sediment	mg/kg	ND	ND	--	0/2	18	--	NS	--	73.5	--	NS	--
Cyclohexane	110-82-7	Sediment	mg/kg	ND	ND	--	0/2	6,500	--	NS	--	3,670,000	--	NS	--
Dibromochloromethane	124-48-1	Sediment	mg/kg	ND	ND	--	0/2	83	--	0.16	--	649	--	0.55	--
Dichlorodifluoromethane	75-71-8	Sediment	mg/kg	ND	ND	--	0/2	87	--	3.68	--	147,000	--	12.9	--
Ethylbenzene	100-41-4	Sediment	mg/kg	ND	ND	--	0/2	58	--	2.63	--	73,500	--	5.26	--
Isopropylbenzene	98-82-8	Sediment	mg/kg	ND	ND	--	0/2	1,900	--	8.99	--	73,500	--	31.5	--
m,p-Xylene	179601-23-1	Sediment	mg/kg	ND	ND	--	0/2	580	--	NS	--	NS	--	NS	--
Methyl acetate	79-20-9	Sediment	mg/kg	ND	ND	--	0/2	78,000	--	NS	--	735,000	--	NS	--
Methyl tert-butyl ether	1634-04-4	Sediment	mg/kg	ND	ND	--	0/2	470	--	NS	--	7,350	--	NS	--
Methylcyclohexane	108-87-2	Sediment	mg/kg	ND	ND	--	0/2	6,500	--	NS	--	3,670,000	--	NS	--
Methylene Chloride	75-09-2	Sediment	mg/kg	ND	ND	--	0/2	570	--	15.5	--	7,267	--	31	--
o-Xylene	95-47-6	Sediment	mg/kg	ND	ND	--	0/2	650	--	NS	--	1,000,000	--	NS	--
Styrene	100-42-5	Sediment	mg/kg	ND	ND	--	0/2	6,000	--	10.2	--	147,000	--	35.8	--
Tetrachloroethene	127-18-4	Sediment	mg/kg	ND	ND	--	0/2	240	--	2.74	--	1,048	--	5.48	--
Toluene	108-88-3	Sediment	mg/kg	ND	ND	--	0/2	4,900	--	6.76	--	58,800	--	13.5	--
trans-1,2-dichloroethene	156-60-5	Sediment	mg/kg	ND	ND	--	0/2	1,600	--	24	--	14,700	--	47.9	--
trans-1,3-dichloropropene[10]	10061-02-6	Sediment	mg/kg	ND	ND	--	0/2	18	--	NS	--	22,000	--	NS	--
Trichloroethene	79-01-6	Sediment	mg/kg	ND	ND	--	0/2	9.4	--	4.56	--	4,410	--	9.13	--
Trichlorofluoromethane	75-69-4	Sediment	mg/kg	ND	ND	--	0/2	23,000	--	1.69	--	220,499	--	5.91	--
Vinyl chloride	75-01-4	Sediment	mg/kg	ND	ND	--	0/2	0.59	--	1.96	--	36.3	--	6.87	--
Semivolatile Organic Compounds (OLM04.2)															
1,1'-Biphenyl	92-52-4	Sediment	mg/kg	ND	ND	--	0/2	47	--	1.1	--	7,655	--	4.80	--
1,2,4-Trichlorobenzene	120-82-1	Sediment	mg/kg	ND	ND	--	0/2	240	--	0.88	--	1,531	--	3.10	--
1,2-Dichlorobenzene	95-50-1	Sediment	mg/kg	ND	ND	--	0/2	1,800	--	0.83	--	66,150	--	2.89	--
1,3-Dichlorobenzene	541-73-1	Sediment	mg/kg	ND	ND	--	0/2	1,800	--	0.19	--	22,050	--	0.27	--
1,4-Dichlorobenzene	106-46-7	Sediment	mg/kg	ND	ND	--	0/2	26	--	0.77	--	2,271	--	2.71	--
1-Methylnaphthalene	90-12-0	Sediment	mg/kg	ND	ND	--	0/2	180	--	NS	--	NS	--	NS	--
2,2-oxybis(1-chloropropane)	108-60-1	Sediment	mg/kg	ND	ND	--	0/2	3,100	--	NS	--	203	--	NS	--
2,4,5-Trichlorophenol	95-95-4	Sediment	mg/kg	ND	ND	--	0/2	6,300	--	NS	--	15,309	--	NS	--
2,4,6-Trichlorophenol	88-06-2	Sediment	mg/kg	ND	ND	--	0/2	490	--	NS	--	1,291	--	NS	--
2,4-Dichlorophenol	120-83-2	Sediment	mg/kg	ND	ND	--	0/2	190	--	NS	--	459	--	NS	--
2,4-Dimethylphenol	105-67-9	Sediment	mg/kg	ND	ND	--	0/2	1,300	--	NS	--	3,060	--	NS	--
2,4-Dinitrophenol	51-28-5	Sediment	mg/kg	ND	ND	--	0/2	130	--	NS	--	306	--	NS	--
2,4-Dinitrotoluene	121-14-2	Sediment	mg/kg	ND	ND	--	0/2	17	--	1.34	--	20.9	--	4.68	--
2,6-Dinitrotoluene	606-20-2	Sediment	mg/kg	ND	ND	--	0/2	3.6	--	NS	--	20.9	--	NS	--
2-Chloronaphthalene	91-58-7	Sediment	mg/kg	ND	ND	--	0/2	4,800	--	NS	--	9,897	--	NS	--
2-Chlorophenol	95-57-8	Sediment	mg/kg	ND	ND	--	0/2	390	--	NS	--	3,675	--	NS	--
2-Methylnaphthalene	91-57-6	Sediment	mg/kg	ND	ND	--	0/2	240	--	0.0202	--	495	--	0.111	--
2-Methylphenol	95-48-7	Sediment	mg/kg	ND	ND	--	0/2	3,200	--	NS	--	7,655	--	NS	--
2-Nitroaniline	88-74-4	Sediment	mg/kg	ND	ND	--	0/2	630	--	NS	--	45.9	--	NS	--
2-Nitrophenol	88-75-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	306	--	NS	--
3&4-methylphenol	34MP	Sediment	mg/kg	ND	ND	--	0/2	3,200	--	NS	--	NS	--	NS	--
3,3'-Dichlorobenzidine	91-94-1	Sediment	mg/kg	ND	ND	--	0/2	12	--	NS	--	31.6	--	NS	--
3-Nitroaniline	99-09-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	45.9	--	NS	--
4,6-Dinitro-2-methylphenol	534-52-1	Sediment	mg/kg	ND	ND	--	0/2	5	--	NS	--	15.3	--	NS	--
4-Bromophenyl phenyl ether	101-55-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.947	--	NS	--
4-chloro-3-methylphenol	59-50-7	Sediment	mg/kg	ND	ND	--	0/2	6,300	--	0.94	--	765	--	3.28	--
4-Chloroaniline	106-47-8	Sediment	mg/kg	ND	ND	--	0/2	27	--	NS	--	612	--	NS	--
4-Chlorophenyl phenyl ether	7005-72-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.947	--	NS	--
4-Nitroaniline	100-01-6	Sediment	mg/kg	ND	ND	--	0/2	270	--	NS	--	612	--	NS	--
4-Nitrophenol	100-02-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	306	--	NS	--
Acenaphthene	83-32-9	Sediment	mg/kg	ND	ND	--	0/2	3,600	--	0.007	--	7,423	--	0.048	--

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Sediment Screening Levels: EPA Residential Regional Screening Level [1]	EPA Residential RSL Exceedance [7]	TCEQ Ecological Screening Values [2]	TCEQ Ecological Screening Value Exceedance [7]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs [3]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs Exceedance [7]	TCEQ Freshwater Benthic PCLs [2]	TCEQ Freshwater Benthic PCLs Exceedance [7]
Acenaphthylene	208-96-8	Sediment	mg/kg	ND	ND	--	0/2	3,600	--	0.006	--	7,423	--	0.067	--
Acetophenone	98-86-2	Sediment	mg/kg	ND	ND	--	0/2	7,800	--	NS	--	15,300	--	NS	--
Anthracene	120-12-7	Sediment	mg/kg	ND	ND	--	0/2	18,000	--	0.057	--	37,113	--	0.451	--
Atrazine	1912-24-9	Sediment	mg/kg	ND	ND	--	0/2	24	--	NS	--	64	--	NS	--
Benzaldehyde	100-52-7	Sediment	mg/kg	ND	ND	--	0/2	1,700	--	NS	--	73,500	--	NS	--
Benzo[a]anthracene	56-55-3	Sediment	mg/kg	ND	ND	--	0/2	11	--	0.108	--	116	--	0.579	--
Benzo[a]pyrene	50-32-8	Sediment	mg/kg	ND	ND	--	0/2	1.1	--	0.15	--	1.59	--	0.8	--
Benzo[b]fluoranthene	205-99-2	Sediment	mg/kg	0.971	0.971	LSED-1-0.0-0.5_05/15/2019	1/2	11	--	NS	--	116	--	NS	--
Benzo[g,h,i]perylene	191-24-2	Sediment	mg/kg	ND	ND	--	0/2	1,800	--	NS	--	3,711	--	NS	--
Benzo[k]fluoranthene	207-08-9	Sediment	mg/kg	ND	ND	--	0/2	110	--	NS	--	159	--	NS	--
Benzyl alcohol	100-51-6	Sediment	mg/kg	ND	ND	--	0/2	6,300	--	NS	--	NS	--	NS	--
Benzyl butyl phthalate	85-68-7	Sediment	mg/kg	ND	ND	--	0/2	2,900	--	11	--	30,618	--	80.5	--
Bis(2-chloroethoxy) methane	111-91-1	Sediment	mg/kg	ND	ND	--	0/2	190	--	NS	--	12.9	--	NS	--
Bis(2-chloroethyl) ether	111-44-4	Sediment	mg/kg	ND	ND	--	0/2	2.3	--	NS	--	49.5	--	NS	--
Bis(2-ethylhexyl) phthalate	117-81-7	Sediment	mg/kg	ND	ND	--	0/2	390	--	0.5	--	244	--	11.3	--
Caprolactam	105-60-2	Sediment	mg/kg	ND	ND	--	0/2	31,000	--	NS	--	76,500	--	NS	--
Carbazole	86-74-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	711	--	NS	--
Chrysene	218-01-9	Sediment	mg/kg	ND	ND	--	0/2	1,100	--	0.166	--	1,592	--	0.728	--
Dibenz[a,h]anthracene	53-70-3	Sediment	mg/kg	ND	ND	--	0/2	1.1	--	0.033	--	1.59	--	0.084	--
Dibenzofuran	132-64-9	Sediment	mg/kg	ND	ND	--	0/2	78	--	0.2	--	612	--	0.44	--
Diethyl phthalate	84-66-2	Sediment	mg/kg	ND	ND	--	0/2	51,000	--	0.63	--	122,473	--	5.82	--
Dimethyl phthalate	131-11-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	1.49	--	122,473	--	5.22	--
di-n-Butyl phthalate	84-74-2	Sediment	mg/kg	ND	ND	--	0/2	6,300	--	11	--	15,309	--	45.5	--
Di-n-octyl phthalate	117-84-0	Sediment	mg/kg	ND	ND	--	0/2	630	--	0.039	--	3,062	--	0.57	--
Fluoranthene	206-44-0	Sediment	mg/kg	0.637	0.637	LSED-1-0.0-0.5_05/15/2019	1/2	2,400	--	0.423	1.51E+00	4,948	--	1.33	--
Fluorene	86-73-7	Sediment	mg/kg	ND	ND	--	0/2	2,400	--	0.077	--	4,948	--	0.307	--
Hexachlorobenzene	118-74-1	Sediment	mg/kg	ND	ND	--	0/2	2.1	--	0.02	--	8.88	--	0.13	--
Hexachlorobutadiene	87-68-3	Sediment	mg/kg	ND	ND	--	0/2	12	--	0.055	--	30.6	--	0.303	--
Hexachlorocyclopentadiene	77-47-4	Sediment	mg/kg	ND	ND	--	0/2	1.8	--	0.067	--	919	--	0.135	--
Hexachloroethane	67-72-1	Sediment	mg/kg	ND	ND	--	0/2	18	--	0.225	--	153	--	2.09	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Sediment	mg/kg	ND	ND	--	0/2	11	--	NS	--	15.9	--	NS	--
Isophorone	78-59-1	Sediment	mg/kg	ND	ND	--	0/2	5,700	--	NS	--	15,000	--	NS	--
Naphthalene	91-20-3	Sediment	mg/kg	ND	ND	--	0/2	20	--	0.176	--	2,474	--	0.369	--
Nitrobenzene	98-95-3	Sediment	mg/kg	ND	ND	--	0/2	51	--	2.1	--	76.5	--	4.20	--
n-Nitrosodi-n-propylamine	621-64-7	Sediment	mg/kg	ND	ND	--	0/2	0.78	--	NS	--	0.631	--	NS	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	901	--	NS	--
Pentachlorophenol	87-86-5	Sediment	mg/kg	ND	ND	--	0/2	10	--	1.2	--	56.1	--	1.20	--
Phenanthrene	85-01-8	Sediment	mg/kg	ND	ND	--	0/2	18,000	--	0.204	--	3,711	--	0.687	--
Phenol	108-95-2	Sediment	mg/kg	ND	ND	--	0/2	19,000	--	0.12	--	45,927	--	0.165	--
Pyrene	129-00-0	Sediment	mg/kg	0.71	0.71	LSED-1-0.0-0.5_05/15/2019	1/2	1,800	--	0.195	3.64E+00	3,711	--	0.858	--
PFAS (E537.0M)															
Perfluorobutanesulfonic acid	375-73-5	Sediment	mg/kg	ND	ND	--	0/2	1,300	--	NS	--	NS	--	NS	--
Perfluorobutanoic acid	375-22-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Sediment	mg/kg	0.00041	0.00041	LSED-9-0.0-0.5_05/15/2019	1/2	NS	--	NS	--	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Sediment	mg/kg	0.0011	0.0024	LSED-9-0.0-0.5_05/15/2019	2/2	NS	--	0.1	--	0.114	--	0.292	--
Perfluorooctanoic acid	335-67-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Sediment Screening Levels: EPA Residential Regional Screening Level [1]	EPA Residential RSL Exceedance [7]	TCEQ Ecological Screening Values [2]	TCEQ Ecological Screening Value Exceedance [7]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs [3]	TCEQ TRRP Tier 1 $^{Tot}Sed_{Comb}$ PCLs Exceedance [7]	TCEQ Freshwater Benthic PCLs [2]	TCEQ Freshwater Benthic PCLs Exceedance [7]
Perfluorotridecanoic acid	72629-94-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--	NS	--
PCB Aroclors (OLM04.2)															
Aroclor 1016	12674-11-2	Sediment	mg/kg	ND	ND	--	0/2	4.1	--	0.007	--	NS	--	0.269	--
Aroclor 1221	11104-28-2	Sediment	mg/kg	ND	ND	--	0/2	2	--	NS	--	NS	--	NS	--
Aroclor 1232	11141-16-5	Sediment	mg/kg	ND	ND	--	0/2	1.7	--	NS	--	NS	--	NS	--
Aroclor 1242	53469-21-9	Sediment	mg/kg	ND	ND	--	0/2	2.3	--	NS	--	NS	--	NS	--
Aroclor 1248	12672-29-6	Sediment	mg/kg	ND	ND	--	0/2	2.3	--	0.03	--	NS	--	0.765	--
Aroclor 1254	11097-69-1	Sediment	mg/kg	ND	ND	--	0/2	2.4	--	NS	--	NS	--	NS	--
Aroclor 1260	11096-82-5	Sediment	mg/kg	ND	ND	--	0/2	2.4	--	0.005	--	NS	--	0.123	--
Total Petroleum Hydrocarbons (TX1005)															
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	520	--	NS	---	NS	--	NS	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	2,400	--	NS	---	NS	--	NS	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	97	--	NS	---	NS	--	NS	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	---	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	---	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential uses scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (VI) for Chromium, Methyl Mercury for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. Ecological Screening Values for Freshwater Sediment from the Texas Commission on Environmental Quality's (TCEQ's) Conducting Ecological Risk Assessments at Remediation Sites in Texas (RG-263). August 2018. Benchmark values last updated August 2019.

3. Texas Risk Reduction Program (TRRP) Tier 1 Direct Human Contact Sediment Protection Concentration Levels (PCL)s include ingestion and dermal pathways.. Last updated March 2006, bolded and italicized values are draft PCLs developed by TCEQ in 2018.

4. Benthic protection based on the NOAA SQuIRTs values listed in Buchman (NOAA 2008), consensus-based unless not available, otherwise the lowest of listed screening values are presented.

5. State of Oregon Department of Environmental Quality, Guidance for Assessing Bioaccumulative Chemicals of Concern in Sediment (2007), Table A-1a. Used for chemicals bioaccumulating into fish with subsequent human ingestion. Based on subsistence/tribal ingestion rate.

6. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (not specified).

7. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.

8. After conferring with the EA Human Health Risk Assessor, Residential Soil Screening Levels (SLs) for metals were adjusted following the procedures were followed when the human health risk assessment is performed. This included an upward adjustment of non-carcinogen metal SLs by a factor of 10, followed by a reduction of each metal SL by a factor of 10 due to the anticipated limited exposure to sediments in the nearby drainage features. This resulted use of a SL of 6.8 mg/kg for arsenic, and 3.0 mg/kg for hexavalent chromium.

9. Chromium VI values applied since no values for total chromium available.

10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Sediment Screening Levels: Protection of Benthic Invertebrates Screening Level [4]	Sediment Screening Levels: Protection of Benthic Invertebrates Screening Level Exceedance [7]	Sediment Screening Levels: Human Health Sediment Bioaccumulation Screening Level [5]	Sediment Screening Levels: Human Health Sediment Bioaccumulation Screening Level Exceedance [7]	Project Screening Level [6]	Project Screening Level Exceedance [7]
Metals (ILM05.3/ISM02.4/SW6010C)													
Aluminum	7429-90-5	Sediment	mg/kg	2,850	18,100	LSED-3-0.0-0.5_05/16/2019	33/33	25,500	--	NS	--	25,500	--
Antimony	7440-36-0	Sediment	mg/kg	ND	ND	--	0/33	3	--	NS	--	0.3	--
Arsenic[8]	7440-38-2	Sediment	mg/kg	0.5	8	SE-06_07/21/2016	33/33	5.9	1.36E+00	7	1.14E+00	5.9	1.36E+00
Barium	7440-39-3	Sediment	mg/kg	41.4	123	LSED-9-0.0-0.5_05/15/2019	33/33	NS	--	NS	--	15,000	--
Beryllium	7440-41-7	Sediment	mg/kg	0.5	0.99	LSED-3-0.0-0.5_05/16/2019	14/33	NS	--	NS	--	26.6	--
Bismuth	7440-69-9	Sediment	mg/kg	ND	ND	--	0/13	NS	--	NS	--	NS	--
Cadmium	7440-43-9	Sediment	mg/kg	0.55	1	SE-04_07/20/2016	13/33	0.596	1.68E+00	1	--	0.596	1.68E+00
Calcium	7440-70-2	Sediment	mg/kg	41,900	225,000	LSED-12-0.0-0.5_05/17/2019	33/33	NS	--	NS	--	NS	--
Chromium[9]	7440-47-3	Sediment	mg/kg	3.5	87.3	SE-05_07/19/2016	33/33	37.3	2.34E+00	NS	--	37.3	2.34E+00
Cobalt	7440-48-4	Sediment	mg/kg	2.4	10.4	SE-06_07/21/2016	32/33	50	--	NS	--	23	--
Copper	7440-50-8	Sediment	mg/kg	6.5	30.9	LSED-1-0.0-0.5_05/15/2019	33/33	31.6	--	NS	--	31.6	--
Indium	7440-74-6	Sediment	mg/kg	ND	ND	--	0/13	NS	--	NS	--	NS	--
Iron	7439-89-6	Sediment	mg/kg	3,040	16,300	LSED-3-0.0-0.5_05/16/2019	33/33	20,000	--	NS	--	20,000	--
Lead	7439-92-1	Sediment	mg/kg	7.3	131	SE-14_07/21/2016	33/33	35	3.74E+00	17	7.71E+00	17	7.71E+00
Magnesium	7439-95-4	Sediment	mg/kg	495	23,900	LSED-4-0.0-0.5_05/16/2019	33/33	NS	--	NS	--	NS	--
Manganese	7439-96-5	Sediment	mg/kg	68.1	1,530	SE-06_07/21/2016	33/33	460	3.33E+00	NS	--	460	3.33E+00
Mercury	7439-97-6	Sediment	mg/kg	0.02	0.271	SE-05_07/19/2016	27/33	0.174	1.56E+00	0.07	3.87E+00	0.07	3.87E+00
Nickel	7440-02-0	Sediment	mg/kg	5.9	55.9	LSED-4-0.0-0.5_05/16/2019	33/33	18	3.11E+00	NS	--	18	3.11E+00
Potassium	7440-09-7	Sediment	mg/kg	383	2,270	LSED-8-0.0-0.5_05/16/2019	33/33	NS	--	NS	--	NS	--
Selenium	7782-49-2	Sediment	mg/kg	0.34	0.86	LSED-5-0.0-0.5_05/16/2019	18/33	NS	--	2	--	2	--
Silver	7440-22-4	Sediment	mg/kg	ND	ND	--	0/33	0.5	--	NS	--	0.5	--
Sodium	7440-23-5	Sediment	mg/kg	71	170	SE-03_07/20/2016, LSED-1-0.0-0.5_05/15/2019	9/33	NS	--	NS	--	22,000	--
Thallium	7440-28-0	Sediment	mg/kg	0.4	0.4	SE-06_07/21/2016	1/33	NS	--	NS	--	0.78	--
Vanadium	7440-62-2	Sediment	mg/kg	10.3	40	LSED-3-0.0-0.5_05/16/2019	33/33	NS	--	NS	--	84.7	--
Zinc	7440-66-6	Sediment	mg/kg	15.2	151	LSED-5-0.0-0.5_05/16/2019	33/33	121	1.25E+00	NS	--	121	1.25E+00
Hexavalent Chromium (SW7199)													
Chromium (hexavalent)[8]	18540-29-9	Sediment	mg/kg	0.25	5.1	LSED-9-0.0-0.5_05/15/2019	14/20	NS	--	NS	--	3	1.70E+00
Cyanide (ISM02.4)													
Cyanide	57-12-5	Sediment	mg/kg	0.034	0.93	SE-05_07/19/2016	19/31	NS	--	NS	--	23	--
Volatile Organic Compounds (OLM04.2)													
1,1,1-Trichloroethane	71-55-6	Sediment	mg/kg	ND	ND	--	0/2	0.07	--	NS	--	0.07	--
1,1,2,2-tetrachloroethane	79-34-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.63	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2.78	--
1,1,2-Trichloroethane	79-00-5	Sediment	mg/kg	ND	ND	--	0/2	0.4	--	NS	--	0.4	--
1,1-Dichloroethane	75-34-3	Sediment	mg/kg	ND	ND	--	0/2	0.02	--	NS	--	0.02	--
1,1-Dichloroethene	75-35-4	Sediment	mg/kg	ND	ND	--	0/2	0.1	--	NS	--	0.1	--
1,2-Dibromo-3-chloropropane	96-12-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.053	--
1,2-Dibromoethane	106-93-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.36	--
1,2-Dichloroethane	107-06-2	Sediment	mg/kg	ND	ND	--	0/2	0.02	--	NS	--	0.02	--
1,2-Dichloropropane	78-87-5	Sediment	mg/kg	ND	ND	--	0/2	0.002	--	NS	--	0.002	--
2-Butanone	78-93-3	Sediment	mg/kg	ND	ND	--	0/2	35	--	NS	--	25.71	--
2-Hexanone	591-78-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	4.7	--
4-Methyl-2-pentanone	108-10-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	19.43	--
Acetone	67-64-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	60.03	--
Benzene	71-43-2	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
Bromodichloromethane	75-27-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2.46	--
Bromoform	75-25-2	Sediment	mg/kg	ND	ND	--	0/2	75	--	NS	--	0.22	--
Bromomethane	74-83-9	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.08	--
Carbon disulfide	75-15-0	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.12	--
Carbon tetrachloride	56-23-5	Sediment	mg/kg	ND	ND	--	0/2	0.17	--	NS	--	0.17	--
Chlorobenzene	108-90-7	Sediment	mg/kg	ND	ND	--	0/2	0.03	--	NS	--	0.03	--
Chloroethane	75-00-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	14,000	--

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Sediment Screening Levels								Project Screening Level [6]	Project Screening Level Exceedance [7]
				Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Protection of Benthic Invertebrates Screening Level [4]	Protection of Benthic Invertebrates Screening Level Exceedance [7]	Human Health Sediment Bioaccumulation Screening Level [5]	Human Health Sediment Bioaccumulation Screening Level Exceedance [7]		
Chloroform	67-66-3	Sediment	mg/kg	ND	ND	--	0/2	0.02	--	NS	--	0.02	--
Chloromethane	74-87-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	17.8	--
cis-1,2-dichloroethene	156-59-2	Sediment	mg/kg	ND	ND	--	0/2	0.2	--	NS	--	0.2	--
cis-1,3-dichloropropene[10]	10061-01-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	18	--
Cyclohexane	110-82-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	6,500	--
Dibromochloromethane	124-48-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.16	--
Dichlorodifluoromethane	75-71-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	3.68	--
Ethylbenzene	100-41-4	Sediment	mg/kg	ND	ND	--	0/2	0.03	--	NS	--	0.03	--
Isopropylbenzene	98-82-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	8.99	--
m,p-Xylene	179601-23-1	Sediment	mg/kg	ND	ND	--	0/2	0.11	--	NS	--	0.11	--
Methyl acetate	79-20-9	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	78,000	--
Methyl tert-butyl ether	1634-04-4	Sediment	mg/kg	ND	ND	--	0/2	100	--	NS	--	100	--
Methylcyclohexane	108-87-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	6,500	--
Methylene Chloride	75-09-2	Sediment	mg/kg	ND	ND	--	0/2	0.018	--	NS	--	0.018	--
o-Xylene	95-47-6	Sediment	mg/kg	ND	ND	--	0/2	0.089	--	NS	--	0.089	--
Styrene	100-42-5	Sediment	mg/kg	ND	ND	--	0/2	0.2	--	NS	--	0.2	--
Tetrachloroethene	127-18-4	Sediment	mg/kg	ND	ND	--	0/2	0.002	--	NS	--	0.002	--
Toluene	108-88-3	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
trans-1,2-dichloroethene	156-60-5	Sediment	mg/kg	ND	ND	--	0/2	0.2	--	NS	--	0.2	--
trans-1,3-dichloropropene[10]	10061-02-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	18	--
Trichloroethene	79-01-6	Sediment	mg/kg	ND	ND	--	0/2	0.0078	--	NS	--	0.0078	--
Trichlorofluoromethane	75-69-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1.69	--
Vinyl chloride	75-01-4	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
Semivolatile Organic Compounds (OLM04.2)													
1,1'-Biphenyl	92-52-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1.1	--
1,2,4-Trichlorobenzene	120-82-1	Sediment	mg/kg	ND	ND	--	0/2	0.011	--	NS	--	0.011	--
1,2-Dichlorobenzene	95-50-1	Sediment	mg/kg	ND	ND	--	0/2	0.03	--	NS	--	0.03	--
1,3-Dichlorobenzene	541-73-1	Sediment	mg/kg	ND	ND	--	0/2	0.03	--	NS	--	0.03	--
1,4-Dichlorobenzene	106-46-7	Sediment	mg/kg	ND	ND	--	0/2	0.03	--	NS	--	0.03	--
1-Methylnaphthalene	90-12-0	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	180	--
2,2-oxybis(1-chloropropane)	108-60-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	203	--
2,4,5-Trichlorophenol	95-95-4	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
2,4,6-Trichlorophenol	88-06-2	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
2,4-Dichlorophenol	120-83-2	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
2,4-Dimethylphenol	105-67-9	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1,300	--
2,4-Dinitrophenol	51-28-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	130	--
2,4-Dinitrotoluene	121-14-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1.34	--
2,6-Dinitrotoluene	606-20-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	3.6	--
2-Chloronaphthalene	91-58-7	Sediment	mg/kg	ND	ND	--	0/2	0.25	--	NS	--	0.25	--
2-Chlorophenol	95-57-8	Sediment	mg/kg	ND	ND	--	0/2	0.055	--	NS	--	0.055	--
2-Methylnaphthalene	91-57-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.020	--
2-Methylphenol	95-48-7	Sediment	mg/kg	ND	ND	--	0/2	0.5	--	NS	--	0.5	--
2-Nitroaniline	88-74-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	45.9	--
2-Nitrophenol	88-75-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	306	--
3&4-methylphenol	34MP	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	3,200	--
3,3'-Dichlorobenzidine	91-94-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	12	--
3-Nitroaniline	99-09-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	62	--	45.9	--
4,6-Dinitro-2-methylphenol	534-52-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	62	--	5.1	--
4-Bromophenyl phenyl ether	101-55-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.947	--
4-chloro-3-methylphenol	59-50-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.94	--
4-Chloroaniline	106-47-8	Sediment	mg/kg	ND	ND	--	0/2	0.005	--	NS	--	0.005	--
4-Chlorophenyl phenyl ether	7005-72-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.947	--
4-Nitroaniline	100-01-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	270	--
4-Nitrophenol	100-02-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	306	--
Acenaphthene	83-32-9	Sediment	mg/kg	ND	ND	--	0/2	0.007	--	NS	--	0.007	--

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Sediment Screening Levels: Protection of Benthic Invertebrates Screening Level [4]	Sediment Screening Levels: Protection of Benthic Invertebrates Screening Level Exceedance [7]	Sediment Screening Levels: Human Health Sediment Bioaccumulation Screening Level [5]	Sediment Screening Levels: Human Health Sediment Bioaccumulation Screening Level Exceedance [7]	Project Screening Level [6]	Project Screening Level Exceedance [7]
Acenaphthylene	208-96-8	Sediment	mg/kg	ND	ND	--	0/2	0.006	--	47	--	0.006	--
Acetophenone	98-86-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	7,800	--
Anthracene	120-12-7	Sediment	mg/kg	ND	ND	--	0/2	0.0572	--	NS	--	0.057	--
Atrazine	1912-24-9	Sediment	mg/kg	ND	ND	--	0/2	0.0002	--	NS	--	0.0002	--
Benzaldehyde	100-52-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1,700	--
Benzo[a]anthracene	56-55-3	Sediment	mg/kg	ND	ND	--	0/2	0.0317	--	NS	--	0.0317	--
Benzo[a]pyrene	50-32-8	Sediment	mg/kg	ND	ND	--	0/2	0.0319	--	NS	--	0.0319	--
Benzo[b]fluoranthene	205-99-2	Sediment	mg/kg	0.971	0.971	LSED-1-0.0-0.5_05/15/2019	1/2	NS	--	NS	--	11	--
Benzo[g,h,i]perylene	191-24-2	Sediment	mg/kg	ND	ND	--	0/2	0.17	--	NS	--	0.17	--
Benzo[k]fluoranthene	207-08-9	Sediment	mg/kg	ND	ND	--	0/2	0.0272	--	NS	--	0.0272	--
Benzyl alcohol	100-51-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	6,300	--
Benzyl butyl phthalate	85-68-7	Sediment	mg/kg	ND	ND	--	0/2	0.1	--	NS	--	0.1	--
Bis(2-chloroethoxy) methane	111-91-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	12.9	--
Bis(2-chloroethyl) ether	111-44-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2.3	--
Bis(2-ethylhexyl) phthalate	117-81-7	Sediment	mg/kg	ND	ND	--	0/2	0.1	--	NS	--	0.1	--
Caprolactam	105-60-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	31,000	--
Carbazole	86-74-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	711	--
Chrysene	218-01-9	Sediment	mg/kg	ND	ND	--	0/2	0.057	--	NS	--	0.057	--
Dibenz[a,h]anthracene	53-70-3	Sediment	mg/kg	ND	ND	--	0/2	0.006	--	NS	--	0.006	--
Dibenzofuran	132-64-9	Sediment	mg/kg	ND	ND	--	0/2	5.1	--	NS	--	0.2	--
Diethyl phthalate	84-66-2	Sediment	mg/kg	ND	ND	--	0/2	0.53	--	NS	--	0.53	--
Dimethyl phthalate	131-11-3	Sediment	mg/kg	ND	ND	--	0/2	1	--	NS	--	1	--
di-n-Butyl phthalate	84-74-2	Sediment	mg/kg	ND	ND	--	0/2	0.11	--	NS	--	0.11	--
Di-n-octyl phthalate	117-84-0	Sediment	mg/kg	ND	ND	--	0/2	0.1	--	NS	--	0.039	--
Fluoranthene	206-44-0	Sediment	mg/kg	0.637	0.637	LSED-1-0.0-0.5_05/15/2019	1/2	0.111	5.74E+00	NS	--	0.111	5.74E+00
Fluorene	86-73-7	Sediment	mg/kg	ND	ND	--	0/2	0.077	--	NS	--	0.0774	--
Hexachlorobenzene	118-74-1	Sediment	mg/kg	ND	ND	--	0/2	0.001	--	NS	--	0.0014	--
Hexachlorobutadiene	87-68-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.055	--
Hexachlorocyclopentadiene	77-47-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.067	--
Hexachloroethane	67-72-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.225	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Sediment	mg/kg	ND	ND	--	0/2	0.017	--	NS	--	0.0173	--
Isophorone	78-59-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	5,700	--
Naphthalene	91-20-3	Sediment	mg/kg	ND	ND	--	0/2	0.176	--	NS	--	0.176	--
Nitrobenzene	98-95-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2.1	--
n-Nitrosodi-n-propylamine	621-64-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	0.0023	--	0.0023	--
N-Nitrosodiphenylamine & Diphenylamine	86-30-6&DIPHN	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Pentachlorophenol	87-86-5	Sediment	mg/kg	ND	ND	--	0/2	0.01	--	NS	--	0.01	--
Phenanthrene	85-01-8	Sediment	mg/kg	ND	ND	--	0/2	0.042	--	NS	--	0.0419	--
Phenol	108-95-2	Sediment	mg/kg	ND	ND	--	0/2	0.048	--	NS	--	0.048	--
Pyrene	129-00-0	Sediment	mg/kg	0.71	0.71	LSED-1-0.0-0.5_05/15/2019	1/2	0.053	1.34E+01	NS	--	0.053	1.34E+01
PFAS (E537.0M)													
Perfluorobutanesulfonic acid	375-73-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1,300	--
Perfluorobutanoic acid	375-22-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorodecanesulfonic acid	335-77-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorodecanoic acid	335-76-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorododecanoic acid	307-55-1	Sediment	mg/kg	0.00041	0.00041	LSED-9-0.0-0.5_05/15/2019	1/2	NS	--	NS	--	NS	--
Perfluoroheptanoic acid	375-85-9	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorohexanesulfonic acid	355-46-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorohexanoic acid	307-24-4	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorononanoic acid	375-95-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorooctanesulfonamide	754-91-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorooctanesulfonic acid	1763-23-1	Sediment	mg/kg	0.0011	0.0024	LSED-9-0.0-0.5_05/15/2019	2/2	0.29	--	NS	--	0.114	--
Perfluorooctanoic acid	335-67-1	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluoropentanoic acid	2706-90-3	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluorotetradecanoic acid	376-06-7	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--

Table 5-13 Screening Level Exceedances for Sediment

Analyte	CASRN	Matrix	Unit	Sediment Screening Levels								Project Screening Level [6]	Project Screening Level Exceedance [7]
				Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Protection of Benthic Invertebrates Screening Level [4]	Protection of Benthic Invertebrates Screening Level Exceedance [7]	Human Health Sediment Bioaccumulation Screening Level [5]	Human Health Sediment Bioaccumulation Screening Level Exceedance [7]		
Perfluorotridecanoic acid	72629-94-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
Perfluoroundecanoic acid	2058-94-8	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
PCB Aroclors (OLM04.2)													
Aroclor 1016	12674-11-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.007	--
Aroclor 1221	11104-28-2	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2	--
Aroclor 1232	11141-16-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	1.7	--
Aroclor 1242	53469-21-9	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2.3	--
Aroclor 1248	12672-29-6	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.03	--
Aroclor 1254	11097-69-1	Sediment	mg/kg	ND	ND	--	0/2	0.06	--	NS	--	0.06	--
Aroclor 1260	11096-82-5	Sediment	mg/kg	ND	ND	--	0/2	NS	--	NS	--	0.005	--
Total Petroleum Hydrocarbons (TX1005)													
TPH (C12-C28) - Aliphatic low	TPHC12C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--	520	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--	2,400	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--	97	--
TPH (C6-C28)	TPHC6C28	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--
TPH (C6-C35)	TPHC6C35	Surface Soil	mg/kg	ND	ND	--	0/2	NS	--	NS	--	NS	--

Notes:

1. EPA Regional Screening Levels (RSLs) for residential uses scenario for hazard index = 1.0 for non-carcinogens and a 10^{-6} cancer risk level for carcinogens (May 2020).
RSL surrogates used: Chromium (VI) for Chromium, Methyl Mercury for Mercury, Acenaphthene for Acenaphthylene, Anthracene for Phenanthrene, Pyrene for Benzo[g,h,i]perylene, 1,2-dichlorobenzene for 1,3-Dichlorobenzene, Cresol, m- for 3&4-methylphenol, 1,3-dichloropropene for cis-1,3-dichloropropene, 1,3-dichloropropene for trans-1,3-dichloropropene, Cyclohexane for Methylcyclohexane, and xylene mixture for m,p-Xylene.

2. Ecological Screening Values for Freshwater Sediment from the Texas Commission on Environmental Quality's (TCEQ's) Conducting Ecological Risk Assessments at Remediation Sites in Texas (RG-263). August 2018. Benchmark values last updated August 2019.

3. Texas Risk Reduction Program (TRRP) Tier 1 Direct Human Contact Sediment Protection Concentration Levels (PCL)s include ingestion and dermal pathways.. Last updated March 2006, bolded and italicized values are draft PCLs developed by TCEQ in 2018.

4. Benthic protection based on the NOAA SQuIRTs values listed in Buchman (NOAA 2008), consensus-based unless not available, otherwise the lowest of listed screening values are presented.

5. State of Oregon Department of Environmental Quality, Guidance for Assessing Bioaccumulative Chemicals of Concern in Sediment (2007), Table A-1a. Used for chemicals bioaccumulating into fish with subsequent human ingestion. Based on subsistence/tribal ingestion rate.

6. The minimum screening level was selected as the project screening level. For analytes with no screening level, the project screening level will be NS (not specified).

7. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.

8. After conferring with the EA Human Health Risk Assessor, Residential Soil Screening Levels (SLs) for metals were adjusted following the procedures were followed when the human health risk assessment is performed. This included an upward adjustment of non-carcinogen metal SLs by a factor of 10, followed by a reduction of each metal SL by a factor of 10 due to the anticipated limited exposure to sediments in the nearby drainage features. This resulted use of a SL of 6.8 mg/kg for arsenic, and 3.0 mg/kg for hexavalent chromium.

9. Chromium VI values applied since no values for total chromium available.

10. The values for cis-1,3-dichloropropene and trans-1,3-Dichloropropene for the EPA RSLs reflect the value reported for 1,3-dichloropropene from their respective sources.

-- = Not applicable.
CASRN = Chemical Abstracts Service Registry Number.
mg/kg = Milligram per kilogram.
ND = Not detected.
NS = No screening level.

Table 5-14 Screening Level Exceedances for Groundwater

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Minimum Non-Detect	Maximum Non-Detect	EPA MCL [1]	EPA MCL Exceedance [2]	EPA Tapwater RSL [3]	EPA Tapwater RSL Exceedance [2]	TCEQ Tier 1 PCL [4] $^{GW}GW_{Ing}$	TCEQ Tier 1 PCL $^{GW}GW_{Ing}$ Exceedance [2]	Project Screening Level [5]	Project Screening Level Exceedance [2]
Total Metals (E218.6/ILM05.3)																	
Aluminum	7429-90-5	Groundwater	µg/L	184	248	MW-01_02/04/2020	2/19	100	100	NS	--	20,000	--	24,000	--	20,000	--
Antimony	7440-36-0	Groundwater	µg/L	ND	ND	--	0/19	2.5	5	6	--	7.8	--	6	--	6	--
Arsenic	7440-38-2	Groundwater	µg/L	ND	ND	--	0/19	2.5	10	10	--	0.052	--	10	--	0.052	--
Barium	7440-39-3	Groundwater	µg/L	40.4	223	ACMW-02_02/03/2020	19/19	75.9	75.9	2,000	--	3,800	--	2,000	--	2,000	--
Beryllium	7440-41-7	Groundwater	µg/L	ND	ND	--	0/19	5	5	4	--	25	--	4	--	4	--
Cadmium	7440-43-9	Groundwater	µg/L	ND	ND	--	0/19	5	5	5	--	9.2	--	5	--	5	--
Calcium	7440-70-2	Groundwater	µg/L	76,700	220,000	MW-03_02/03/2020	19/19	NA	NA	NS	--	NS	--	NS	--	NS	--
Chromium	7440-47-3	Groundwater	µg/L	37.4	6,100	MW-10_02/04/2020	9/19	10	10	100	6.10E+01	0.035	1.74E+05	100	6.10E+01	0.035	1.74E+05
Cobalt	7440-48-4	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	6	--	240	--	6	--
Copper	7440-50-8	Groundwater	µg/L	ND	ND	--	0/19	20	20	1,300	--	800	--	1,300	--	800	--
Iron	7439-89-6	Groundwater	µg/L	38.4	218	MW-01_02/04/2020	4/19	25	25	NS	--	14,000	--	NS	--	14,000	--
Lead	7439-92-1	Groundwater	µg/L	ND	ND	--	0/19	2.5	5	15	--	15	--	15	--	15	--
Magnesium	7439-95-4	Groundwater	µg/L	881	24,100	ACMW-01_02/03/2020	19/19	NA	NA	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Groundwater	µg/L	14.3	779	MW-02_05/29/2019	14/19	5	5	NS	--	430	1.81E+00	1,100	--	430	1.81E+00
Mercury	7439-97-6	Groundwater	µg/L	ND	ND	--	0/19	0.2	0.2	2	--	5.7	--	2	--	2	--
Molybdenum	7439-98-7	Groundwater	µg/L	ND	ND	--	0/5	2.5	2.5	NS	--	100	--	120	--	100	--
Nickel	7440-02-0	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	390	--	490	--	390	--
Potassium	7440-09-7	Groundwater	µg/L	1,010	6,970	ACMW-01_02/03/2020	14/19	1,000	4,710	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Groundwater	µg/L	ND	ND	--	0/19	5	25	50	--	100	--	50	--	50	--
Silver	7440-22-4	Groundwater	µg/L	ND	ND	--	0/19	10	10	NS	--	94	--	120	--	94	--
Sodium	7440-23-5	Groundwater	µg/L	6,020	311,000	ACMW-01_02/03/2020	19/19	NA	NA	NS	--	NS	--	NS	--	NS	--
Thallium	7440-28-0	Groundwater	µg/L	ND	ND	--	0/19	2.5	5	2	--	0.2	--	2	--	0.2	--
Vanadium	7440-62-2	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	86	--	44	--	44	--
Zinc	7440-66-6	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	6,000	--	7,300	--	6,000	--
Total Hexavalent Chromium (E218.6)																	
Chromium (hexavalent)	18540-29-9	Groundwater	µg/L	0.17	5,630	MW-10_02/04/2020	14/19	0.15	0.15	NS	--	0.035	1.61E+05	100	5.63E+01	0.035	1.61E+05
Dissolved Metals (ILM05.3)																	
Aluminum	7429-90-5	Groundwater	µg/L	140	140	ACMW-04-F_02/03/2020	1/19	100	100	NS	--	20,000	--	24,000	--	20,000	--
Antimony	7440-36-0	Groundwater	µg/L	ND	ND	--	0/19	2.5	5	6	--	7.8	--	6	--	6	--
Arsenic	7440-38-2	Groundwater	µg/L	ND	ND	--	0/19	2.5	10	10	--	0.052	--	10	--	0.052	--
Barium	7440-39-3	Groundwater	µg/L	19.8	223	ACMW-02-F_02/03/2020	19/19	NA	NA	2,000	--	3,800	--	2,000	--	2,000	--
Beryllium	7440-41-7	Groundwater	µg/L	ND	ND	--	0/19	5	5	4	--	25	--	4	--	4	--
Cadmium	7440-43-9	Groundwater	µg/L	ND	ND	--	0/19	5	5	5	--	9.2	--	5	--	5	--
Calcium	7440-70-2	Groundwater	µg/L	38,300	211,000	MW-03-F_02/03/2020	19/19	NA	NA	NS	--	NS	--	NS	--	NS	--
Chromium	7440-47-3	Groundwater	µg/L	34.6	5,840	MW-10-F_02/04/2020	9/19	10	10	100	5.84E+01	0.035	1.67E+05	100	5.84E+01	0.035	1.67E+05
Cobalt	7440-48-4	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	6	--	240	--	6	--
Copper	7440-50-8	Groundwater	µg/L	28.6	28.6	MW-02-F_05/29/2019	1/19	20	20	1,300	--	800	--	1,300	--	800	--
Iron	7439-89-6	Groundwater	µg/L	25.5	36.7	MW-01-F_05/28/2019	3/19	25	25	NS	--	14,000	--	NS	--	14,000	--
Lead	7439-92-1	Groundwater	µg/L	ND	ND	--	0/19	2.5	5	15	--	15	--	15	--	15	--
Magnesium	7439-95-4	Groundwater	µg/L	855	23,200	ACMW-01-F_02/03/2020	19/19	NA	NA	NS	--	NS	--	NS	--	NS	--
Manganese	7439-96-5	Groundwater	µg/L	12.1	778	MW-02-F_05/29/2019	13/19	5	5	NS	--	430	1.81E+00	1,100	--	430	1.81E+00
Mercury	7439-97-6	Groundwater	µg/L	ND	ND	--	0/19	0.2	0.2	2	--	5.7	--	2	--	2	--
Molybdenum	7439-98-7	Groundwater	µg/L	ND	ND	--	0/5	2.5	2.5	NS	--	100	--	120	--	100	--
Nickel	7440-02-0	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	390	--	490	--	390	--
Potassium	7440-09-7	Groundwater	µg/L	1,100	7,050	ACMW-01-F_02/03/2020	12/19	1,000	1,000	NS	--	NS	--	NS	--	NS	--
Selenium	7782-49-2	Groundwater	µg/L	ND	ND	--	0/19	5	25	50	--	100	--	50	--	50	--
Silver	7440-22-4	Groundwater	µg/L	ND	ND	--	0/19	10	10	NS	--	94	--	120	--	94	--
Sodium	7440-23-5	Groundwater	µg/L	5,820	303,000	ACMW-01-F_02/03/2020	19/19	NA	NA	NS	--	NS	--	NS	--	NS	--
Thallium	7440-28-0	Groundwater	µg/L	ND	ND	--	0/19	2.5	5	2	--	0.2	--	2	--	0.2	--
Vanadium	7440-62-2	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	86	--	44	--	44	--
Zinc	7440-66-6	Groundwater	µg/L	ND	ND	--	0/19	20	20	NS	--	6,000	--	7,300	--	6,000	--

Table 5-14 Screening Level Exceedances for Groundwater

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Minimum Non-Detect	Maximum Non-Detect	EPA MCL [1]	EPA MCL Exceedance [2]	EPA Tapwater RSL [3]	EPA Tapwater RSL Exceedance [2]	TCEQ Tier 1 PCL [4] $^{GW}GW_{Ing}$	TCEQ Tier 1 PCL $^{GW}GW_{Ing}$ Exceedance [2]	Project Screening Level [5]	Project Screening Level Exceedance [2]
Cyanide (E335.4)																	
Cyanide	57-12-5	Groundwater	µg/L	ND	ND	--	0/5	10	10	200	--	1.5	--	200	--	1.5	--
Volatile Organic Compounds (OLM04.2)																	
1,1,1-Trichloroethane	71-55-6	Groundwater	µg/L	ND	ND	--	0/1	1	1	200	--	8,000	--	200	--	200	--
1,1,2,2-tetrachloroethane	79-34-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	0.076	--	4.6	--	0.076	--
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	10,000	--	730,000	--	10,000	--
1,1,2-Trichloroethane	79-00-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	0.28	--	5	--	0.28	--
1,1-Dichloroethane	75-34-3	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	2.8	--	4,900	--	2.8	--
1,1-Dichloroethene	75-35-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	7	--	280	--	7	--	7	--
1,2-Dibromo-3-chloropropane	96-12-8	Groundwater	µg/L	ND	ND	--	0/1	1	1	0.2	--	0.00033	--	0.2	--	0.00033	--
1,2-Dibromoethane	106-93-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	0.05	--	0.0075	--	0.05	--	0.0075	--
1,2-Dichloroethane	107-06-2	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	0.17	--	5	--	0.17	--
1,2-Dichloropropane	78-87-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	0.85	--	5	--	0.85	--
2-Butanone	78-93-3	Groundwater	µg/L	ND	ND	--	0/1	5	5	NS	--	5,600	--	15,000	--	5,600	--
2-Hexanone	591-78-6	Groundwater	µg/L	ND	ND	--	0/1	5	5	NS	--	38	--	120	--	38	--
4-Methyl-2-pentanone	108-10-1	Groundwater	µg/L	ND	ND	--	0/1	5	5	NS	--	6,300	--	2,000	--	2,000	--
Acetone	67-64-1	Groundwater	µg/L	ND	ND	--	0/1	5	5	NS	--	14,000	--	22,000	--	14,000	--
Benzene	71-43-2	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	0.46	--	5	--	0.46	--
Bromodichloromethane	75-27-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	0.13	--	80	--	0.13	--
Bromoform	75-25-2	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	3.3	--	80	--	3.3	--
Bromomethane	74-83-9	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	7.5	--	34	--	7.5	--
Carbon disulfide	75-15-0	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	810	--	2,400	--	810	--
Carbon tetrachloride	56-23-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	0.46	--	5	--	0.46	--
Chlorobenzene	108-90-7	Groundwater	µg/L	ND	ND	--	0/1	1	1	100	--	78	--	100	--	78	--
Chloroethane	75-00-3	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	21,000	--	9,800	--	9,800	--
Chloroform	67-66-3	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	0.22	--	80	--	0.22	--
Chloromethane	74-87-3	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	190	--	70	--	70	--
cis-1,2-dichloroethene	156-59-2	Groundwater	µg/L	ND	ND	--	0/1	1	1	70	--	36	--	70	--	36	--
cis-1,3-dichloropropene	10061-01-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	0.47	--	1.7	--	0.47	--
Cyclohexane	110-82-7	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	13,000	--	120,000	--	13,000	--
Dibromochloromethane	124-48-1	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	0.87	--	80	--	0.87	--
Dichlorodifluoromethane	75-71-8	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	200	--	4,900	--	200	--
Ethylbenzene	100-41-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	700	--	1.5	--	700	--	1.5	--
Isopropylbenzene	98-82-8	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	450	--	2,400	--	450	--
m,p-Xylene	179601-23-1	Groundwater	µg/L	ND	ND	--	0/1	2	2	10,000	--	190	--	10,000	--	190	--
Methyl acetate	79-20-9	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	20,000	--	24,000	--	20,000	--
Methyl tert-butyl ether	1634-04-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	14	--	240	--	14	--
Methylcyclohexane	108-87-2	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	13,000	--	120,000	--	13,000	--
Methylene Chloride	75-09-2	Groundwater	µg/L	ND	ND	--	0/1	2	2	5	--	11	--	5	--	5	--
o-Xylene	95-47-6	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	190	--	10,000	--	190	--
Styrene	100-42-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	100	--	1,200	--	100	--	100	--
Tetrachloroethene	127-18-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	11	--	5	--	5	--
Toluene	108-88-3	Groundwater	µg/L	ND	ND	--	0/1	1	1	1,000	--	1,100	--	1,000	--	1,000	--
trans-1,2-dichloroethene	156-60-5	Groundwater	µg/L	ND	ND	--	0/1	1	1	100	--	360	--	100	--	100	--
trans-1,3-dichloropropene	10061-02-6	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	0.47	--	9.1	--	0.47	--
Trichloroethene	79-01-6	Groundwater	µg/L	ND	ND	--	0/1	1	1	5	--	0.49	--	5	--	0.49	--
Trichlorofluoromethane	75-69-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	NS	--	5,200	--	7,300	--	5,200	--
Vinyl chloride	75-01-4	Groundwater	µg/L	ND	ND	--	0/1	1	1	2	--	0.019	--	2	--	0.019	--
Semivolatile Organic Compounds (OLM04.2)																	
1,1'-Biphenyl	92-52-4	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.83	--	12,000	--	0.83	--
1,2,4-Trichlorobenzene	120-82-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	70	--	1.2	--	70	--	1.2	--
1,2-Dichlorobenzene	95-50-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	600	--	300	--	600	--	300	--
1,3-Dichlorobenzene	541-73-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	600	--	300	--	730	--	300	--

Table 5-14 Screening Level Exceedances for Groundwater

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Minimum Non-Detect	Maximum Non-Detect	EPA MCL [1]	EPA MCL Exceedance [2]	EPA Tapwater RSL [3]	EPA Tapwater RSL Exceedance [2]	TCEQ Tier 1 PCL [4] $^{GW}GW_{Ing}$	TCEQ Tier 1 PCL $^{GW}GW_{Ing}$ Exceedance [2]	Project Screening Level [5]	Project Screening Level Exceedance [2]
1,4-Dichlorobenzene	106-46-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	75	--	0.48	--	75	--	0.48	--
1-Methylnaphthalene	90-12-0	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	1.1	--	31	--	1.1	--
2,2-oxybis(1-chloropropane)	108-60-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	710	--	13	--	13	--
2,4,5-Trichlorophenol	95-95-4	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	1,200	--	2,400	--	1,200	--
2,4,6-Trichlorophenol	88-06-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	4.1	--	24	--	4.1	--
2,4-Dichlorophenol	120-83-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	46	--	73	--	46	--
2,4-Dimethylphenol	105-67-9	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	360	--	490	--	360	--
2,4-Dinitrophenol	51-28-5	Groundwater	µg/L	ND	ND	--	0/1	19.7	19.7	NS	--	39	--	49	--	39	--
2,4-Dinitrotoluene	121-14-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.24	--	1.3	--	0.24	--
2,6-Dinitrotoluene	606-20-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.049	--	1.3	--	0.049	--
2-Chloronaphthalene	91-58-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	750	--	2,000	--	750	--
2-Chlorophenol	95-57-8	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	91	--	120	--	91	--
2-Methylnaphthalene	91-57-6	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	36	--	98	--	36	--
2-Methylphenol	95-48-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	930	--	1,200	--	930	--
2-Nitroaniline	88-74-4	Groundwater	µg/L	ND	ND	--	0/1	7.9	7.9	NS	--	190	--	7.3	--	7.3	--
2-Nitrophenol	88-75-5	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	NS	--	49	--	49	--
3&4-methylphenol	34MP	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	930	--	NS	--	930	--
3,3'-Dichlorobenzidine	91-94-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.13	--	2	--	0.13	--
3-Nitroaniline	99-09-2	Groundwater	µg/L	ND	ND	--	0/1	7.9	7.9	NS	--	NS	--	7.3	--	7.3	--
4,6-Dinitro-2-methylphenol	534-52-1	Groundwater	µg/L	ND	ND	--	0/1	19.7	19.7	NS	--	1.5	--	2.4	--	1.5	--
4-Bromophenyl phenyl ether	101-55-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	NS	--	0.061	--	0.061	--
4-chloro-3-methylphenol	59-50-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	1,400	--	120	--	120	--
4-Chloroaniline	106-47-8	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.37	--	4.6	--	0.37	--
4-Chlorophenyl phenyl ether	7005-72-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	NS	--	0.061	--	0.061	--
4-Nitroaniline	100-01-6	Groundwater	µg/L	ND	ND	--	0/1	7.9	7.9	NS	--	3.8	--	46	--	3.8	--
4-Nitrophenol	100-02-7	Groundwater	µg/L	ND	ND	--	0/1	12.8	12.8	NS	--	NS	--	49	--	49	--
Acenaphthene	83-32-9	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	530	--	1,500	--	530	--
Acenaphthylene	208-96-8	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	530	--	1,500	--	530	--
Acetophenone	98-86-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	1,900	--	2,400	--	1,900	--
Anthracene	120-12-7	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	1,800	--	7,300	--	1,800	--
Atrazine	1912-24-9	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	3	--	0.3	--	3	--	0.3	--
Benzaldehyde	100-52-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	19	--	2,400	--	19	--
Benzo[a]anthracene	56-55-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.03	--	9.1	--	0.03	--
Benzo[a]pyrene	50-32-8	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	0.2	--	0.025	--	0.2	--	0.025	--
Benzo[b]fluoranthene	205-99-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.25	--	9.1	--	0.25	--
Benzo[g,h,i]perylene	191-24-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	120	--	730	--	120	--
Benzo[k]fluoranthene	207-08-9	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	2.5	--	91	--	2.5	--
Benzyl alcohol	100-51-6	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	2,000	--	2,400	--	2,000	--
Benzyl butyl phthalate	85-68-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	16	--	480	--	16	--
Bis(2-chloroethoxy) methane	111-91-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	59	--	0.83	--	0.83	--
Bis(2-chloroethyl) ether	111-44-4	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.014	--	0.83	--	0.014	--
Bis(2-ethylhexyl) phthalate	117-81-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	6	--	5.6	--	6	--	5.6	--
Caprolactam	105-60-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	9,900	--	12,000	--	9,900	--
Carbazole	86-74-8	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	NS	--	46	--	46	--
Chrysene	218-01-9	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	25	--	910	--	25	--
Dibenz[a,h]anthracene	53-70-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.025	--	0.2	--	0.025	--
Dibenzofuran	132-64-9	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	7.9	--	98	--	7.9	--
Diethyl phthalate	84-66-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	15,000	--	20,000	--	15,000	--
Dimethyl phthalate	131-11-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	NS	--	20,000	--	20,000	--
di-n-Butyl phthalate	84-74-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	900	--	2,400	--	900	--
Di-n-octyl phthalate	117-84-0	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	200	--	240	--	200	--
Fluoranthene	206-44-0	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	800	--	980	--	800	--
Fluorene	86-73-7	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	290	--	980	--	290	--

Table 5-14 Screening Level Exceedances for Groundwater

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Minimum Non-Detect	Maximum Non-Detect	EPA MCL [1]	EPA MCL Exceedance [2]	EPA Tapwater RSL [3]	EPA Tapwater RSL Exceedance [2]	TCEQ Tier 1 PCL [4] $^{GW}GW_{Ing}$	TCEQ Tier 1 PCL $^{GW}GW_{Ing}$ Exceedance [2]	Project Screening Level [5]	Project Screening Level Exceedance [2]
Hexachlorobenzene	118-74-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	1	--	0.0098	--	1	--	0.0098	--
Hexachlorobutadiene	87-68-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.14	--	12	--	0.14	--
Hexachlorocyclopentadiene	77-47-4	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	50	--	0.41	--	50	--	0.41	--
Hexachloroethane	67-72-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.33	--	17	--	0.33	--
Indeno[1,2,3-c,d]pyrene	193-39-5	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.25	--	9.1	--	0.25	--
Isophorone	78-59-1	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	78	--	960	--	78	--
Naphthalene	91-20-3	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	0.12	--	490	--	0.12	--
Nitrobenzene	98-95-3	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.14	--	49	--	0.14	--
n-Nitrosodi-n-propylamine	621-64-7	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	0.011	--	0.13	--	0.011	--
N-Nitrosodiphenylamine & Diphenylam	86-30-6&DIPHN	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	NS	--	NS	--	NS	--
Pentachlorophenol	87-86-5	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	1	--	0.041	--	1	--	0.041	--
Phenanthrene	85-01-8	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	1,800	--	730	--	730	--
Phenol	108-95-2	Groundwater	µg/L	ND	ND	--	0/1	4.9	4.9	NS	--	5,800	--	7,300	--	5,800	--
Pyrene	129-00-0	Groundwater	µg/L	ND	ND	--	0/1	2	2	NS	--	120	--	730	--	120	--
PFAS (E537.0M)																	
Perfluorobutanesulfonic acid	375-73-5	Groundwater	µg/L	0.00083	0.53	MW-06_02/04/2020	14/15	0.00048	0.23	NS	--	400	--	34	--	34	--
Perfluorobutanoic acid	375-22-4	Groundwater	µg/L	0.0026	0.028	MW-05_02/04/2020	13/15	0.0019	0.002	NS	--	NS	--	71	--	71	--
Perfluorodecanesulfonic acid	335-77-3	Groundwater	µg/L	ND	ND	--	0/15	0.00043	0.00055	NS	--	NS	--	0.29	--	0.29	--
Perfluorodecanoic acid	335-76-2	Groundwater	µg/L	ND	ND	--	0/15	0.00043	0.00082	NS	--	NS	--	0.37	--	0.37	--
Perfluorododecanoic acid	307-55-1	Groundwater	µg/L	ND	ND	--	0/15	0.00043	0.00052	NS	--	NS	--	0.29	--	0.29	--
Perfluoroheptanoic acid	375-85-9	Groundwater	µg/L	0.00053	0.0045	MW-01_05/28/2019	8/15	0.00044	0.0005	NS	--	NS	--	0.56	--	0.56	--
Perfluorohexanesulfonic acid	355-46-4	Groundwater	µg/L	0.0007	0.48	MW-01_05/28/2019	13/15	0.00048	0.0005	NS	--	NS	--	0.093	5.16E+00	0.093	5.16E+00
Perfluorohexanoic acid	307-24-4	Groundwater	µg/L	0.00078	0.011	MW-05_02/04/2020	11/15	0.00044	0.0005	NS	--	NS	--	0.093	--	0.093	--
Perfluorononanoic acid	375-95-1	Groundwater	µg/L	0.00072	0.0012	MW-01_05/28/2019	2/15	0.00043	0.0012	NS	--	NS	--	0.29	--	0.29	--
Perfluorooctanesulfonamide	754-91-6	Groundwater	µg/L	0.00048	0.0019	MW-03_02/03/2020	6/15	0.00044	0.00052	NS	--	NS	--	0.29	--	0.29	--
Perfluorooctanesulfonic acid	1763-23-1	Groundwater	µg/L	0.0006	18	MW-01_05/28/2019	14/15	0.0005	0.0005	NS	--	NS	--	0.56	3.21E+01	0.56	3.21E+01
Perfluorooctanoic acid	335-67-1	Groundwater	µg/L	0.0013	0.028	MW-01_05/28/2019	10/15	0.00044	0.028	NS	--	NS	--	0.29	--	0.29	--
Perfluoropentanoic acid	2706-90-3	Groundwater	µg/L	0.00085	0.021	MW-05_02/04/2020	11/15	0.00044	0.0005	NS	--	NS	--	0.093	--	0.093	--
Perfluorotetradecanoic acid	376-06-7	Groundwater	µg/L	ND	ND	--	0/15	0.00027	0.00052	NS	--	NS	--	0.29	--	0.29	--
Perfluorotridecanoic acid	72629-94-8	Groundwater	µg/L	ND	ND	--	0/15	0.00037	0.00052	NS	--	NS	--	0.29	--	0.29	--
Perfluoroundecanoic acid	2058-94-8	Groundwater	µg/L	ND	ND	--	0/15	0.00037	0.00052	NS	--	NS	--	0.29	--	0.29	--
PCB Aroclors (OLM04.2)																	
Aroclor 1016	12674-11-2	Groundwater	µg/L	ND	ND	--	0/1	0.19	0.19	NS	--	0.22	--	NS	--	0.22	--
Aroclor 1221	11104-28-2	Groundwater	µg/L	ND	ND	--	0/1	0.38	0.38	NS	--	0.0047	--	NS	--	0.0047	--
Aroclor 1232	11141-16-5	Groundwater	µg/L	ND	ND	--	0/1	0.19	0.19	NS	--	0.0047	--	NS	--	0.0047	--
Aroclor 1242	53469-21-9	Groundwater	µg/L	ND	ND	--	0/1	0.19	0.19	NS	--	0.0078	--	NS	--	0.0078	--
Aroclor 1248	12672-29-6	Groundwater	µg/L	ND	ND	--	0/1	0.19	0.19	NS	--	0.0078	--	NS	--	0.0078	--
Aroclor 1254	11097-69-1	Groundwater	µg/L	ND	ND	--	0/1	0.19	0.19	NS	--	0.0078	--	NS	--	0.0078	--
Aroclor 1260	11096-82-5	Groundwater	µg/L	ND	ND	--	0/1	0.19	0.19	NS	--	0.0078	--	NS	--	0.0078	--
Total Petroleum Hyrdrocarbons (TX1005)																	
TPH (C12-C28) - Aliphatic low	TPHC12C28	Groundwater	µg/L	ND	ND	--	0/1	620	620	NS	--	1,300	--	980	--	980	--
TPH (C28-C35) - Aromatic high	TPHC28C35	Groundwater	µg/L	ND	ND	--	0/1	620	620	NS	--	800	--	980	--	800	--
TPH (C6-C12) - Aromatic medium	TPHC6C12	Groundwater	µg/L	ND	ND	--	0/1	530	530	NS	--	5.5	--	980	--	5.5	--
TPH (C6-C28) - NS	TPHC6C28	Groundwater	µg/L	ND	ND	--	0/1	620	620	NS	--	NS	--	NS	--	NS	--
TPH (C6-C35) - NS	TPHC6C35	Groundwater	µg/L	ND	ND	--	0/1	620	620	NS	--	NS	--	NS	--	NS	--

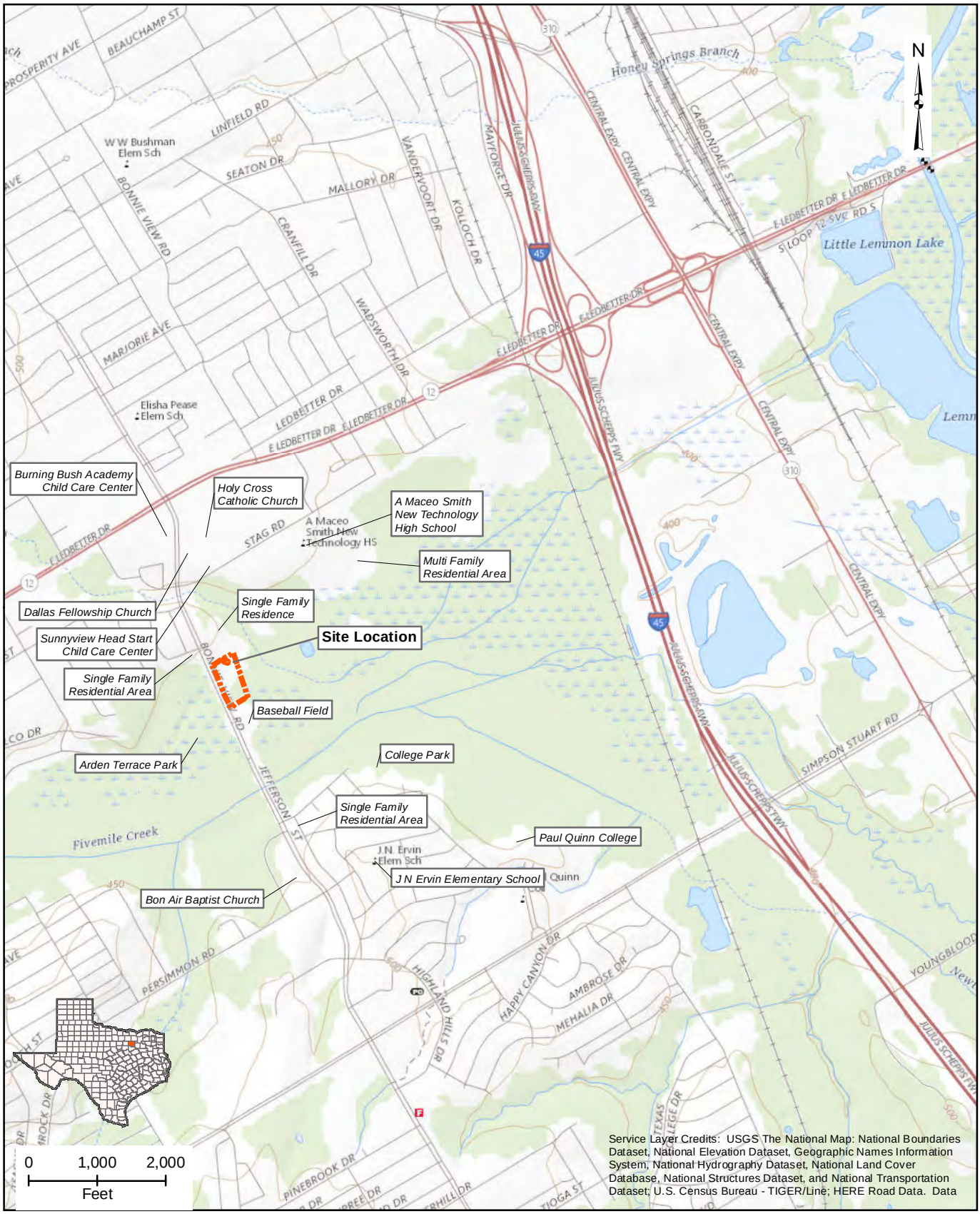
Table 5-14 Screening Level Exceedances for Groundwater

Analyte	CASRN	Matrix	Unit	Minimum Detect	Maximum Detect	Maximum Result Sample Location(s)	Detection Frequency	Minimum Non-Detect	Maximum Non-Detect	EPA MCL [1]	EPA MCL Exceedance [2]	EPA Tapwater RSL [3]	EPA Tapwater RSL Exceedance [2]	TCEQ Tier 1 PCL [4] $^{GW}GW_{Ing}$	TCEQ Tier 1 PCL $^{GW}GW_{Ing}$ Exceedance [2]	Project Screening Level [5]	Project Screening Level Exceedance [2]

Notes:
1. U.S. Environmental Protection Agency (EPA) National Primary Drinking Water Regulations, Maximum Contaminant Levels (MCLs), May 2020.
2. The exceedance column is the maximum detected concentration divided by the screening criteria. Only comparisons where the maximum detected concentration exceeds the screening criteria are presented.
3. EPA Region 6 Regional Screening Levels (RSLs) for Tapwater (May 2020) for hazard index = 1.0 for non-carcinogens and a 10-6 cancer risk level for carcinogens.
4. TCEQ Texas Risk Reduction Program Tier 1 PCLs, updated November 2019.
5. The project screening level was selected to satisfy EPA requirements. The EPA MCL will be used; if no EPA MCL standard exists for an analyte, then the project screening level is the lower of the EPA Tapwater RSL or TCEQ Texas Risk Reduction Program Tier 1 PCLs.

CASRN = Chemical Abstracts Service Registry Number.
µg/L = Microgram per liter.
ND = Not detected.
NS = No screening value.
-- = Not applicable.

Figures



Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 1-1
Site Location

2019-02-14 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\CUSTM\LP_SigFeaturesP.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

- On-site Wells
- Overland Flow
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

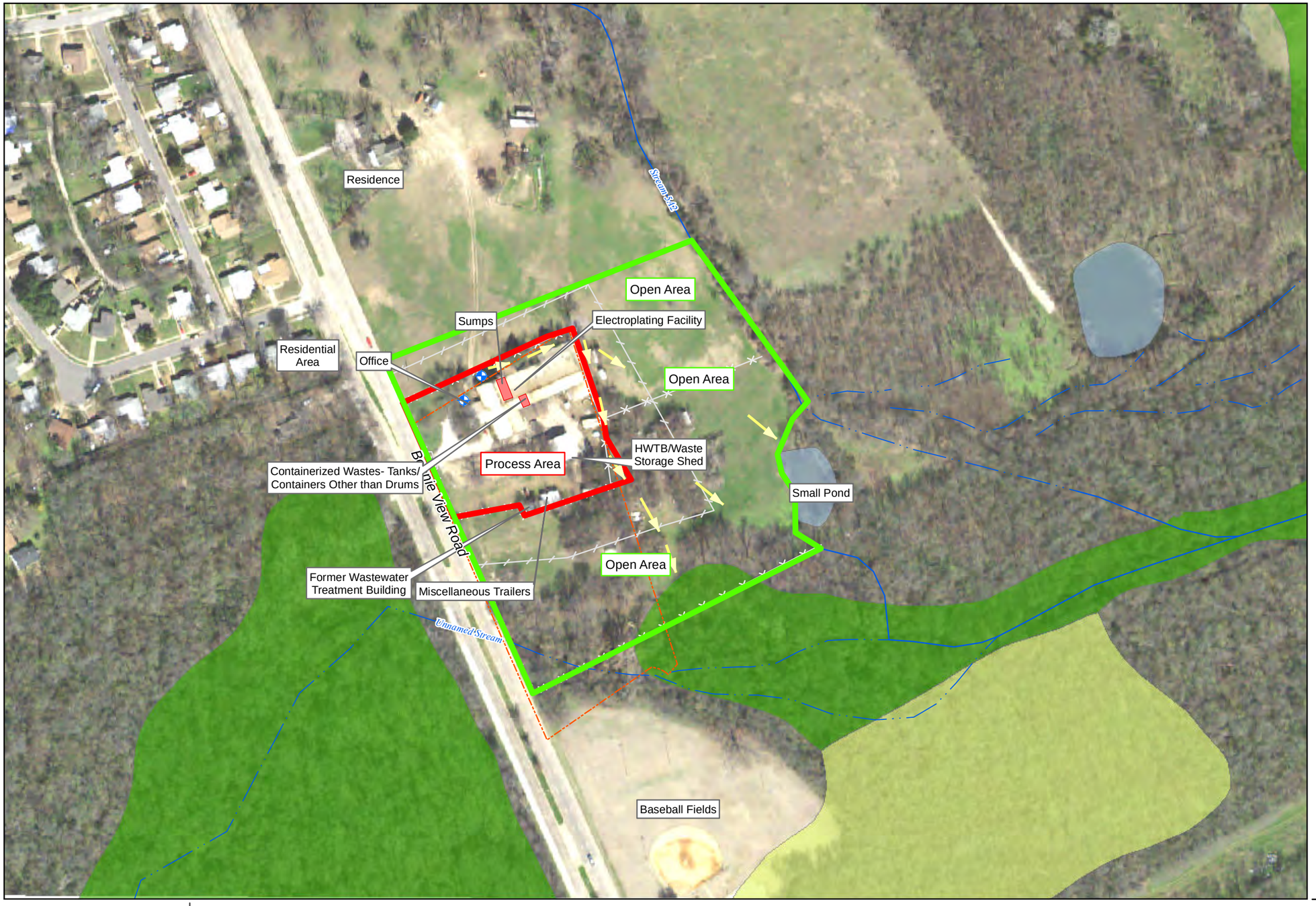
Note:
HWTB: Hazardous Waste Treatment Building

Imagery Source:
Site:Texas Orthoimagery
Program 2015 0.5 Meter DOQQ,
Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 1-2
Site Features

2020-07-08 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_Sitelayout.mxd EA-Dallas jschwertz



N

0 100 200
Feet

Legend

- On-site Wells
- Overland Flow

Soil Exposure Areas

- Process Area
- Open Area
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
HWTB: Hazardous Waste Treatment Building

Imagery Source:
Site:Texas Orthoimagery
Program 2015 0.5 Meter DOQQ,
Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 1-3
Soil Exposure Areas

2020-09-24 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SoilAreas.mxd EA-Dallas jschwertz

Legend

Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Inspection Samples

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 2-1
Surface Soil Sample Locations

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SoilLocs.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 2-2
Subsurface Soil Sample Locations

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbLocs.mxd EA-Dallas jschwertz

Legend

- Remedial Investigation Sample
- Site Inspection Sample, 2016
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source:
National Agriculture Imagery Program 2018 0.6 Meter DOQQ

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 2-3
Sediment Sample Locations

2020-09-08 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SELocs.mxd EA-Dallas jschwertz

Legend

- Remedial Investigation Sample
- Site Inspection Sample, 2016
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source:
National Agriculture Imagery Program 2018 0.6 Meter DOQQ

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 2-4
Surface Water Sample Locations

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SWLocs.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

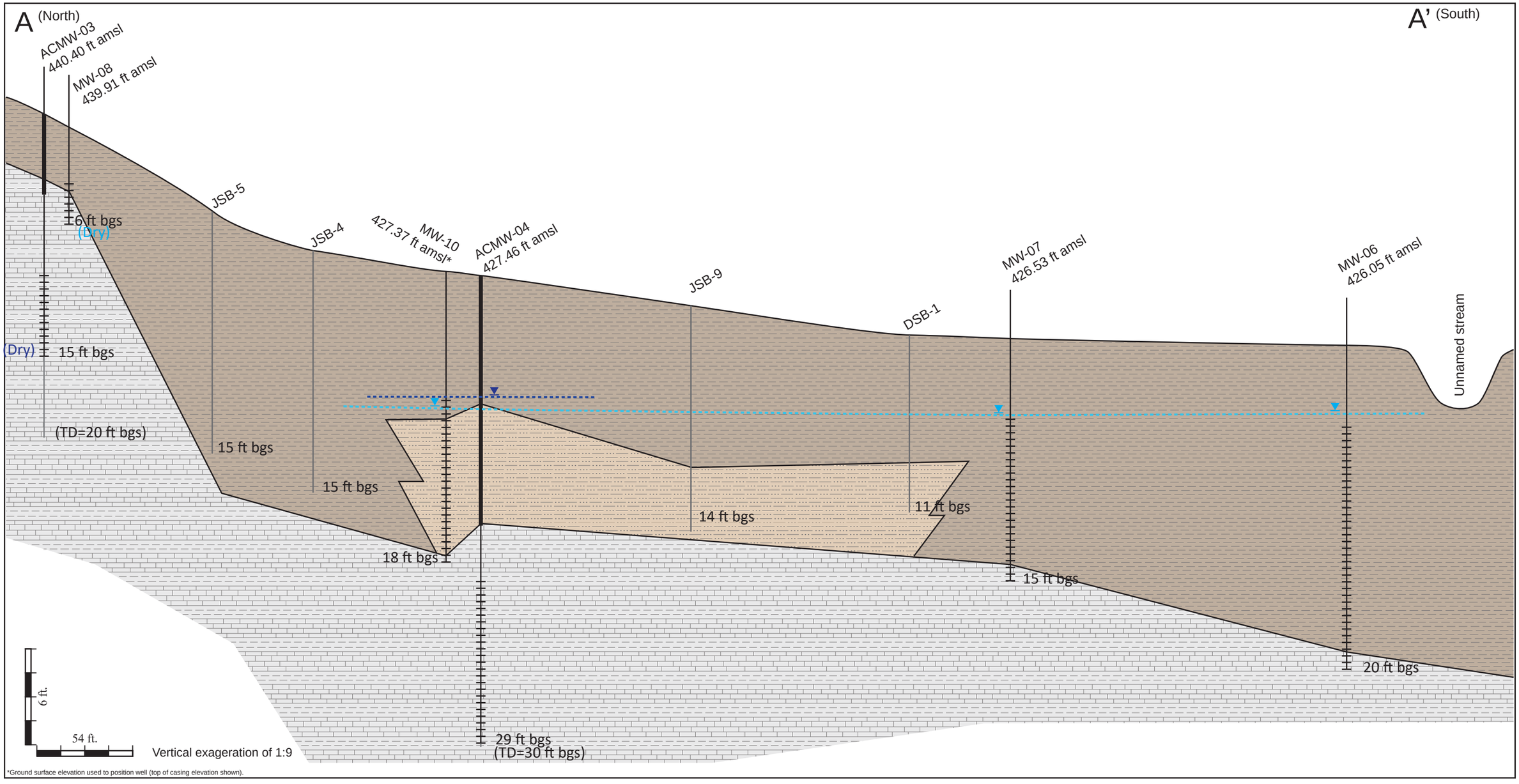
- Process Area
- Open Area
- Water Well
- Dry Monitoring Well
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 2-5
Groundwater Sample Locations

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwLocs.mxd EA-Dallas jschwertz



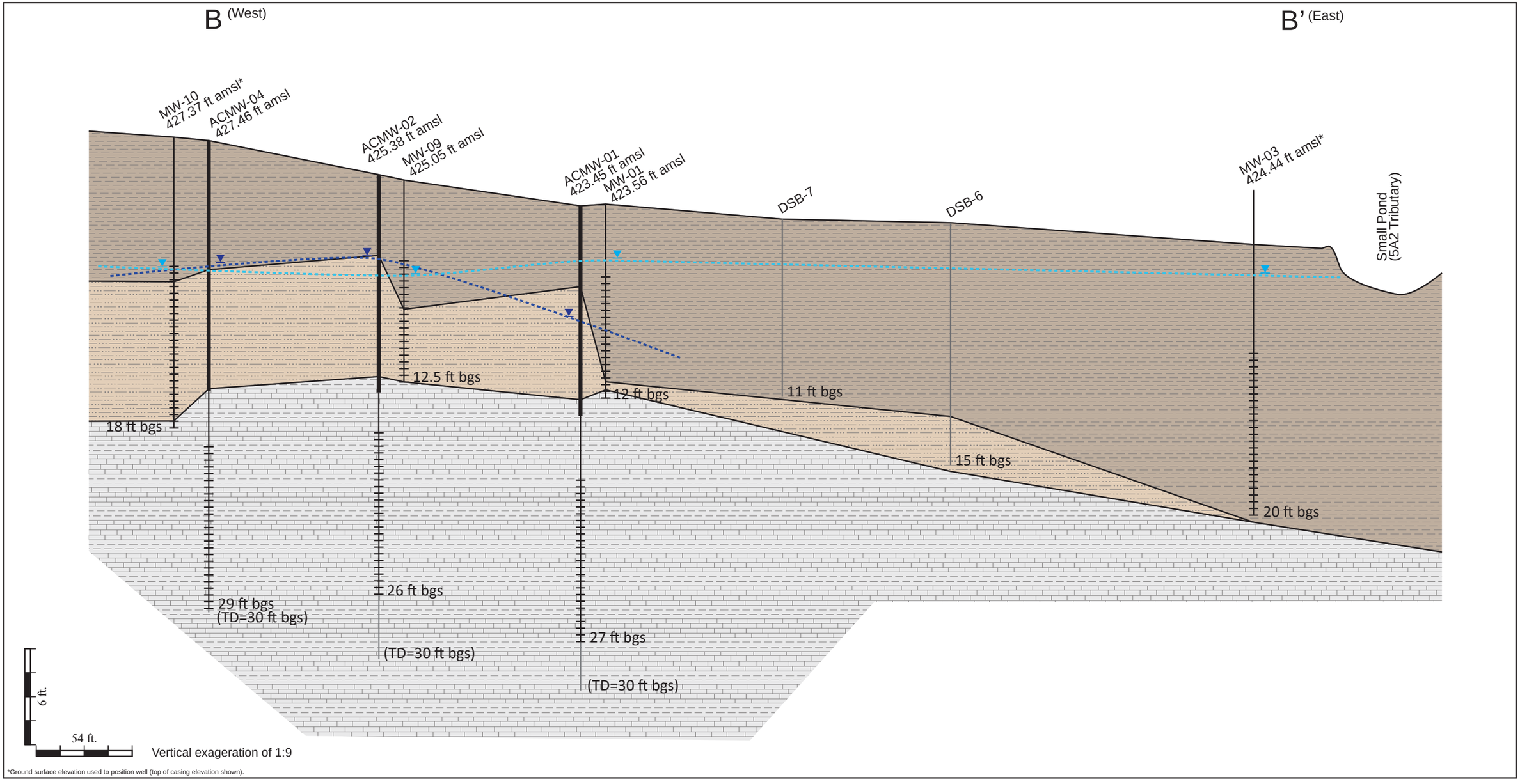
LEGEND

- Clay (Includes Silty and Sandy Clay)
- Silty Clay
- Limestone/Chalk/Marl
- Well Casing
- Surface Casing
- Well Screen Interval
- Perched Groundwater Zone Potentiometric Surface
- Austin Chalk Potentiometric Surface
- Soil Boring (Also total depth of monitoring well boring, if deeper than well)

Figure 3-1
Generalized Hydrogeologic Cross Section A - A'

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

July 2020



*Ground surface elevation used to position well (top of casing elevation shown).

LEGEND

Clay (Includes Silty and Sandy Clay)	Well Casing	Perched Groundwater Zone Potentiometric Surface
Silty Clay	Surface Casing	Austin Chalk Potentiometric Surface
Limestone/Chalk/Marl	Well Screen Interval	Soil Boring (Also total depth of monitoring well boring, if deeper than well)

Figure 3-2
Generalized Hydrogeologic Cross Section B - B'

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

July 2020

N

0 140 280
Feet

Legend

Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Transects
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

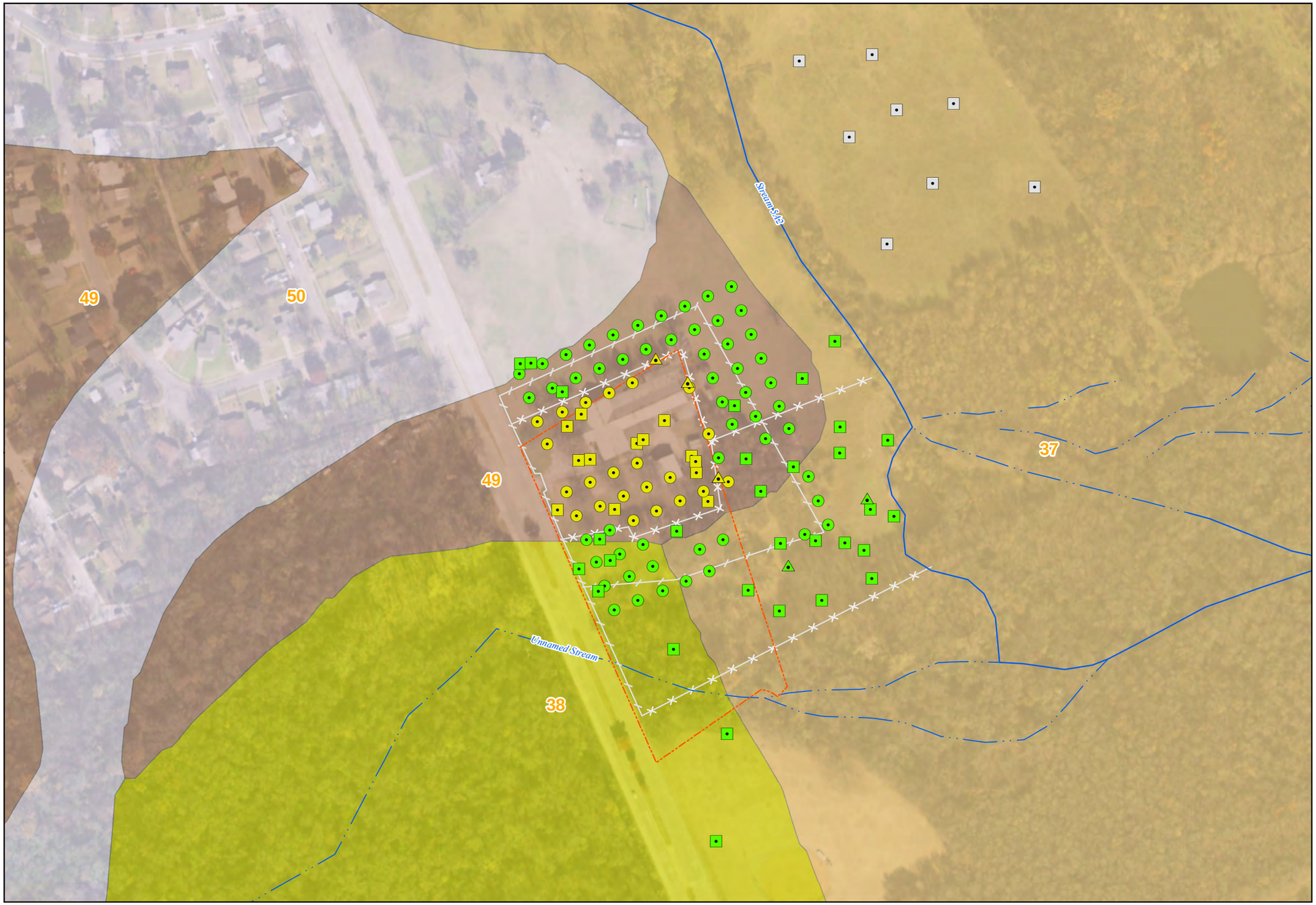
Note:
RI - Remedial Investigation, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Inspection Samples

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 3-3
Transects for Cross Sections

2020-09-30 M:\Federal\EPA\RAC III\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_Transects.mxd EA-Dallas jschwertz



N

0 200 400
Feet

Legend

Surface Soil Sample Locations

- Developed Area, ReAs
- Developed Area, RI
- Developed Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition

Soil Classification Area

- 37 Frio silty clay, 0 to 1 percent slopes, frequently flooded
- 38 Frio-Urban land complex, frequently flooded
- 49 Lewisvile-Urban land complex, 0 to 4 percent slopes
- 50 Lewisvile-Urban land complex, 4 to 8 percent slopes

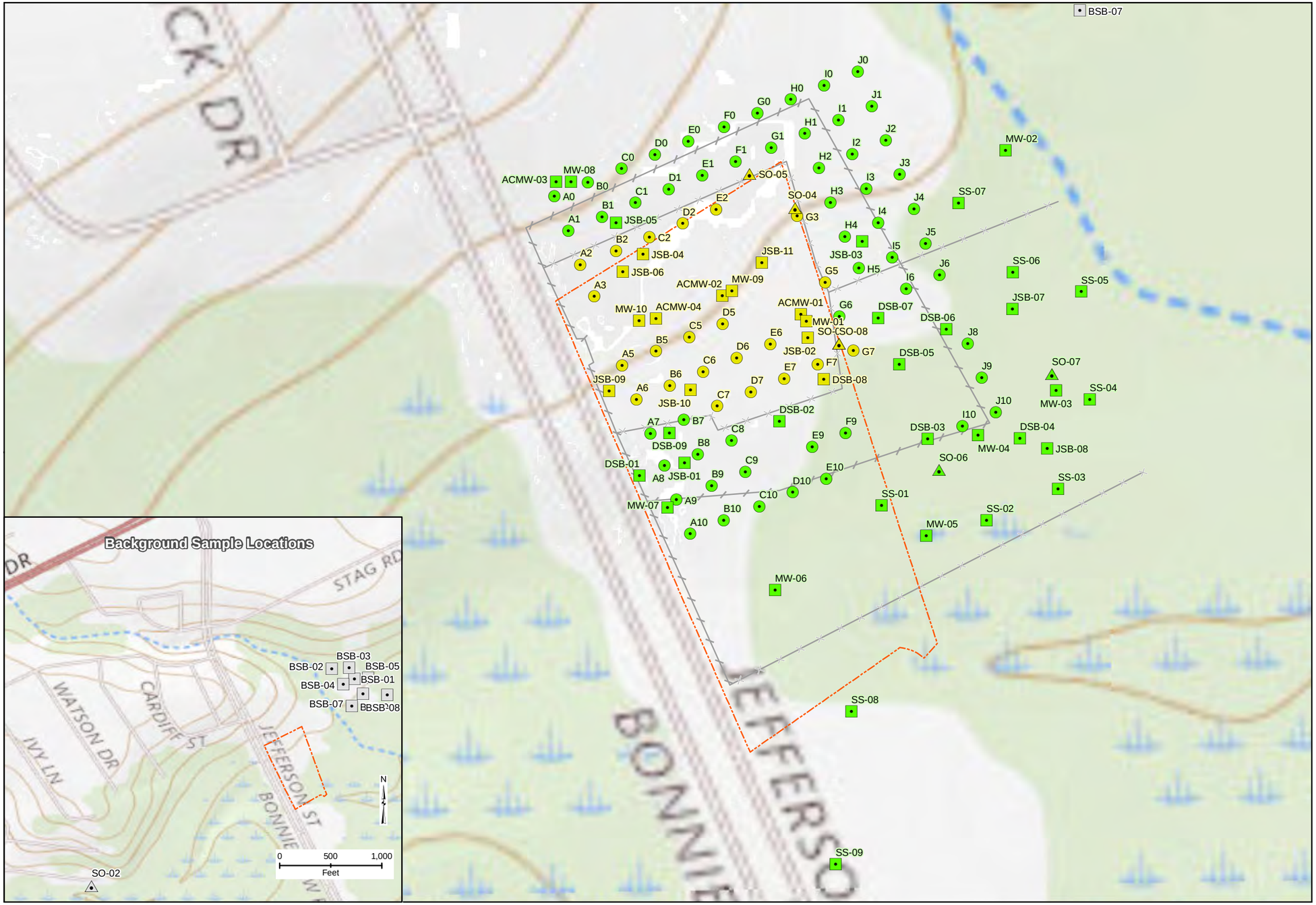
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples

Imagery Source: National Argicultural Inmagery Program 2018, 0.6 Meter DOQQ, USDA, 2019.
Soil Map Source:USDA Natural Resources Conservation Service, National Cooperative Soil Survey, 2020

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 3-4
NRCS Soil Types with Surface Soil Sample Locations Included

2020-07-16 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_Soil.mxd EA-Dallas jschwertz



N

0 140 280

Feet

Legend

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition

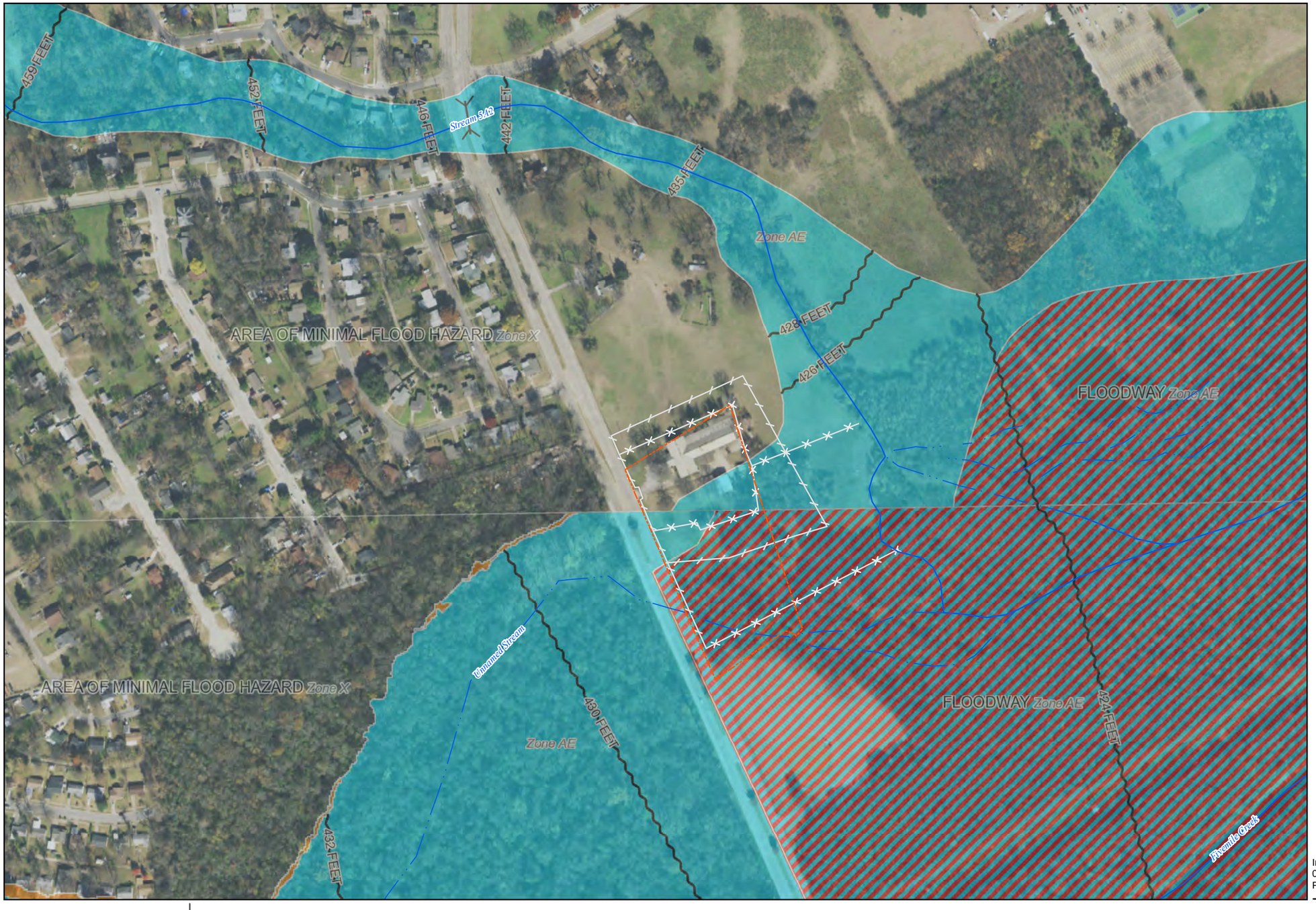
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples

Imagery Source: National Argicultural Inmagery Program 2018, 0.6 Meter DOQQ, USDA, 2019.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 3-5
Topographic Map with
Surface Soil Sample Locations

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_Topo2.mxd EA-Dallas jschwertz



N

0 300 600
Feet

Legend

- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Base Flood Elevations

Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway

Imagery Source: National Argicultural Inmagery Program 2018, 0.6 Meter DOQQ, USDA, 2019.
Flood Map Source: FEMA's National Flood Hazard Layer service.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 3-6
Designated Flood Zones Associated with the Site and the Surrounding Areas

2020-06-26 M:\Federal\EPA\RAC III\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_Flood.mxd EA-Dallas jschwertz

N

0 50 100
Feet

Legend

- Groundwater Sample Locations
- Sample locations with full suite analysis.
- On-site Wells
- Potentiometric Contour
- Inferred Potentiometric Contour
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation - Phase 1
ERT - US EPA Emergency response Team
TCEQ - Texas Commision on Environmental Quality

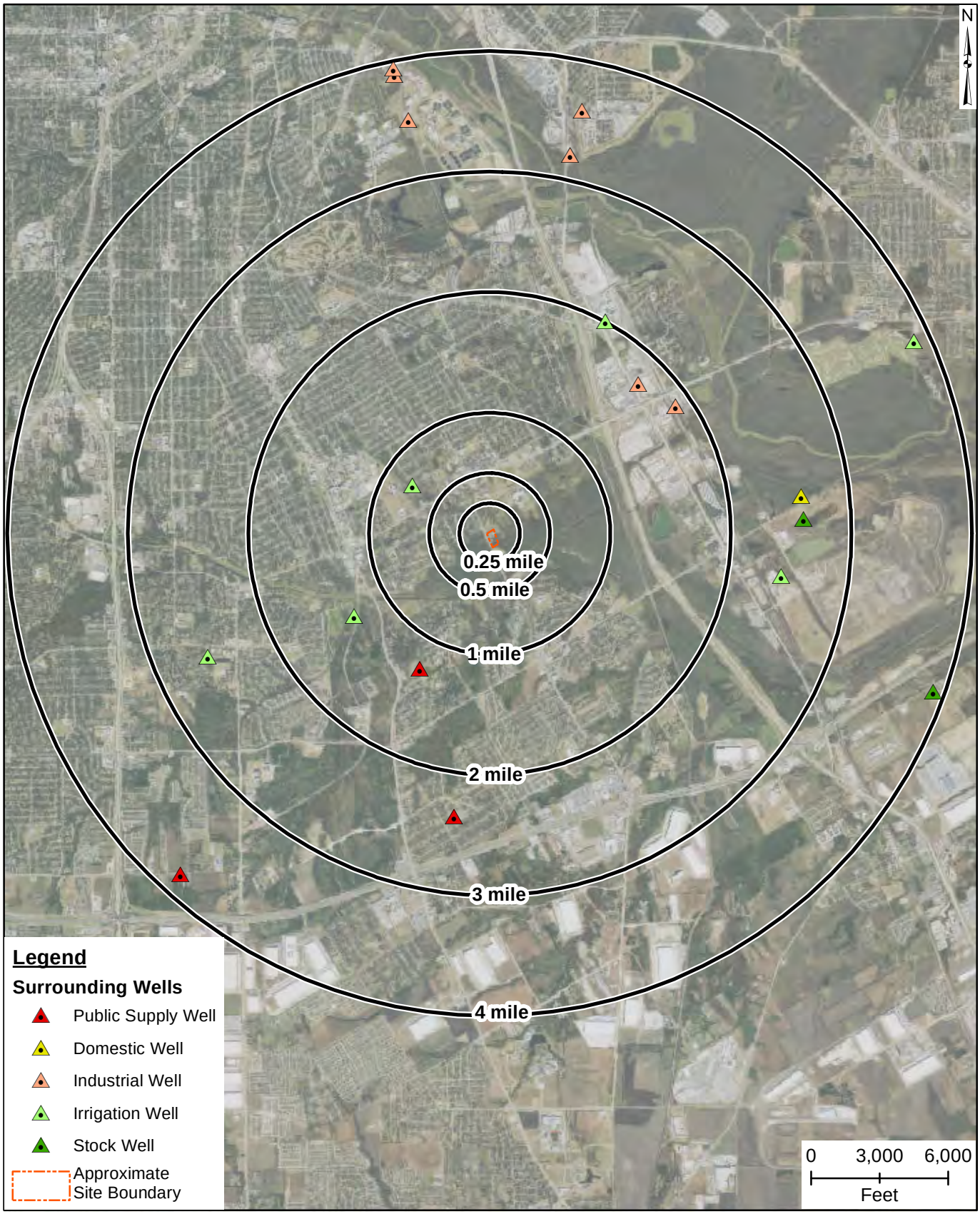
MW-05 Monitoring Well
419.14 Elevation

Imagery Source:
Site:Texas Orthoimagery
Program 2015 0.5 Meter DOQQ,
Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 3-7
Groundwater Potentiometric Map

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_PotMap.mxd EA-Dallas jschwertz

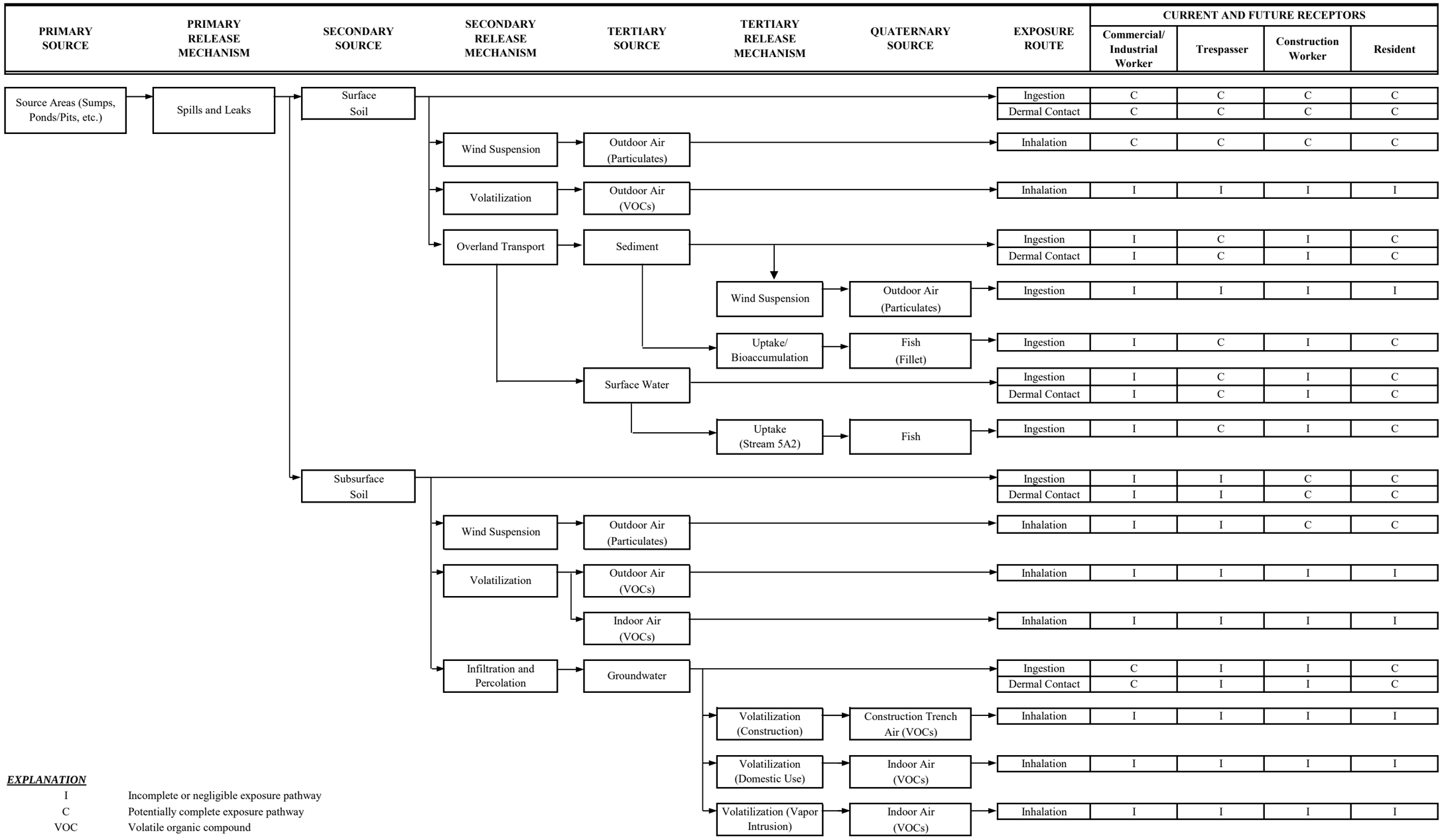


Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 3-8
Surrounding Water Well Location Map

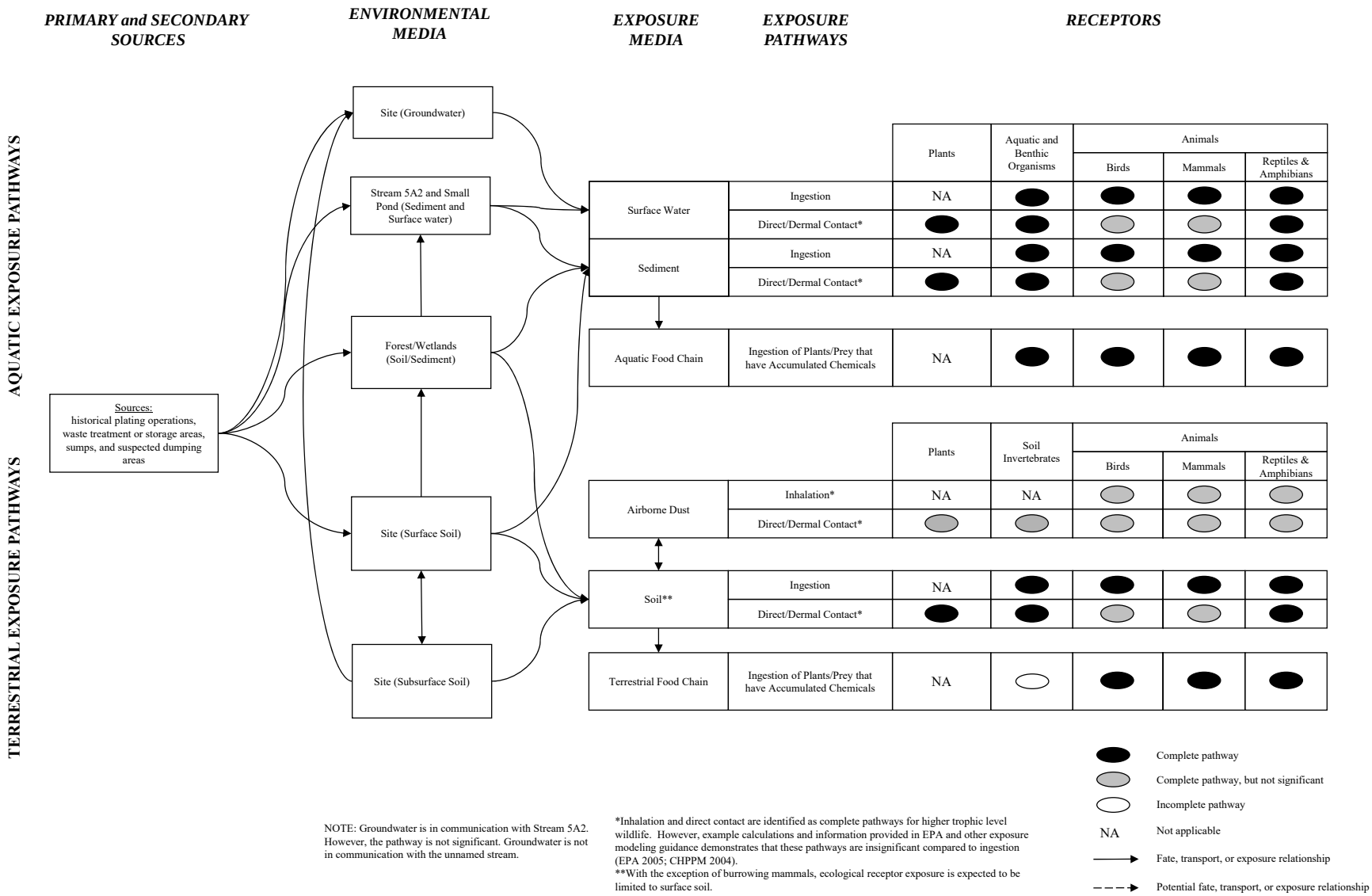
2020-09-30 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\tceq wells.mxd EA-Dallas jschwertz

FIGURE 5-1 HUMAN HEALTH CONCEPTUAL SITE MODEL
LANE PLATING WORKS, INC. SUPERFUND SITE



EXPLANATION

I	Incomplete or negligible exposure pathway
C	Potentially complete exposure pathway
VOC	Volatile organic compound



NOTE: Groundwater is in communication with Stream 5A2. However, the pathway is not significant. Groundwater is not in communication with the unnamed stream.

*Inhalation and direct contact are identified as complete pathways for higher trophic level wildlife. However, example calculations and information provided in EPA and other exposure modeling guidance demonstrates that these pathways are insignificant compared to ingestion (EPA 2005; CHPPM 2004).
**With the exception of burrowing mammals, ecological receptor exposure is expected to be limited to surface soil.

Figure 5-2 Ecological Conceptual Site Model

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Residential Soil RSL for
Hexavalent Chromium is 0.3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-3
Residential Soil RSL Exceedances
for Hexavalent Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCr6Re.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Industrial Soil RSL for
Hexavalent Chromium is 6.3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-4
Industrial Soil RSL Exceedances
for Hexavalent Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCr6in.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

Detected Result Exceeds Ecological Benchmark

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Ecological Benchmark for
Hexavalent Chromium is 0.34 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-5
Ecological Benchmark Exceedances
for Hexavalent Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCr6Eco.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

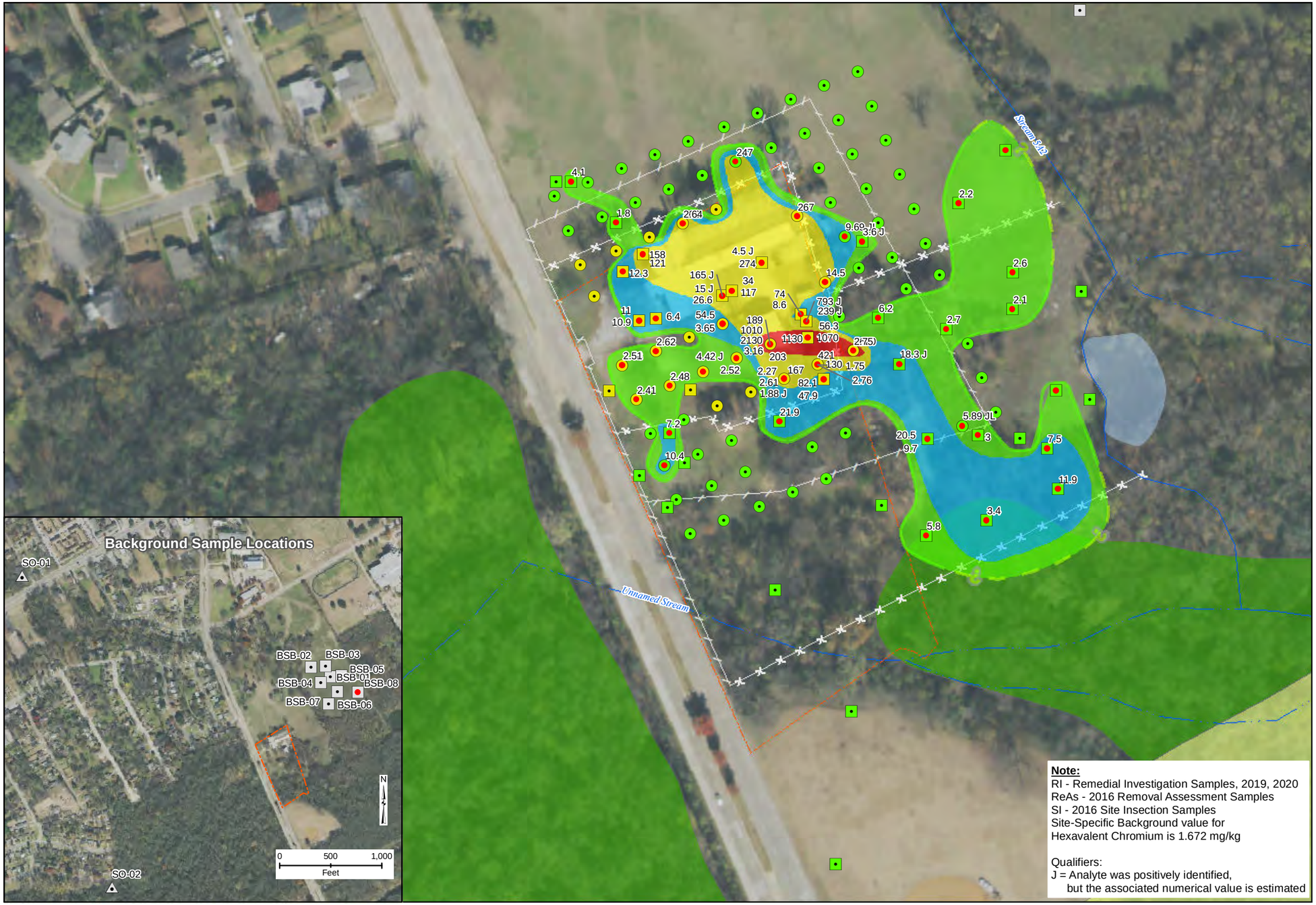
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Site-Specific Background value for Hexavalent Chromium is 1.672 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-6
Site-Specific Background Exceedances for Hexavalent Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCr6Bg.mxd EA-Dallas jschwertz



Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-7
Site-Specific Background Exceedances and Isoconcentrations for Hexavalent Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCr6Bgiso.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Residential Soil RSL value for
Lead is 400 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-8
Residential Soil RSL Exceedances for Lead in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsPbRe.mxd EA-Dallas jschwertz

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Commercial/Industrial Soil RSL value for Lead is 800 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-9
Commercial/Industrial Soil RSL Exceedances for Lead in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsPbIn.mxd EA-Dallas jschwertz

N

0 140 280

Feet

Legend

- Detected Result Exceeds Ecological Benchmark

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Ecological Benchmark value for
Lead is 11 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.6 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-10
Ecological Benchmark Exceedances for Lead in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsPhEco.mxd EA-Dallas jschwertz

N

0 140 280

Feet

Legend

Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

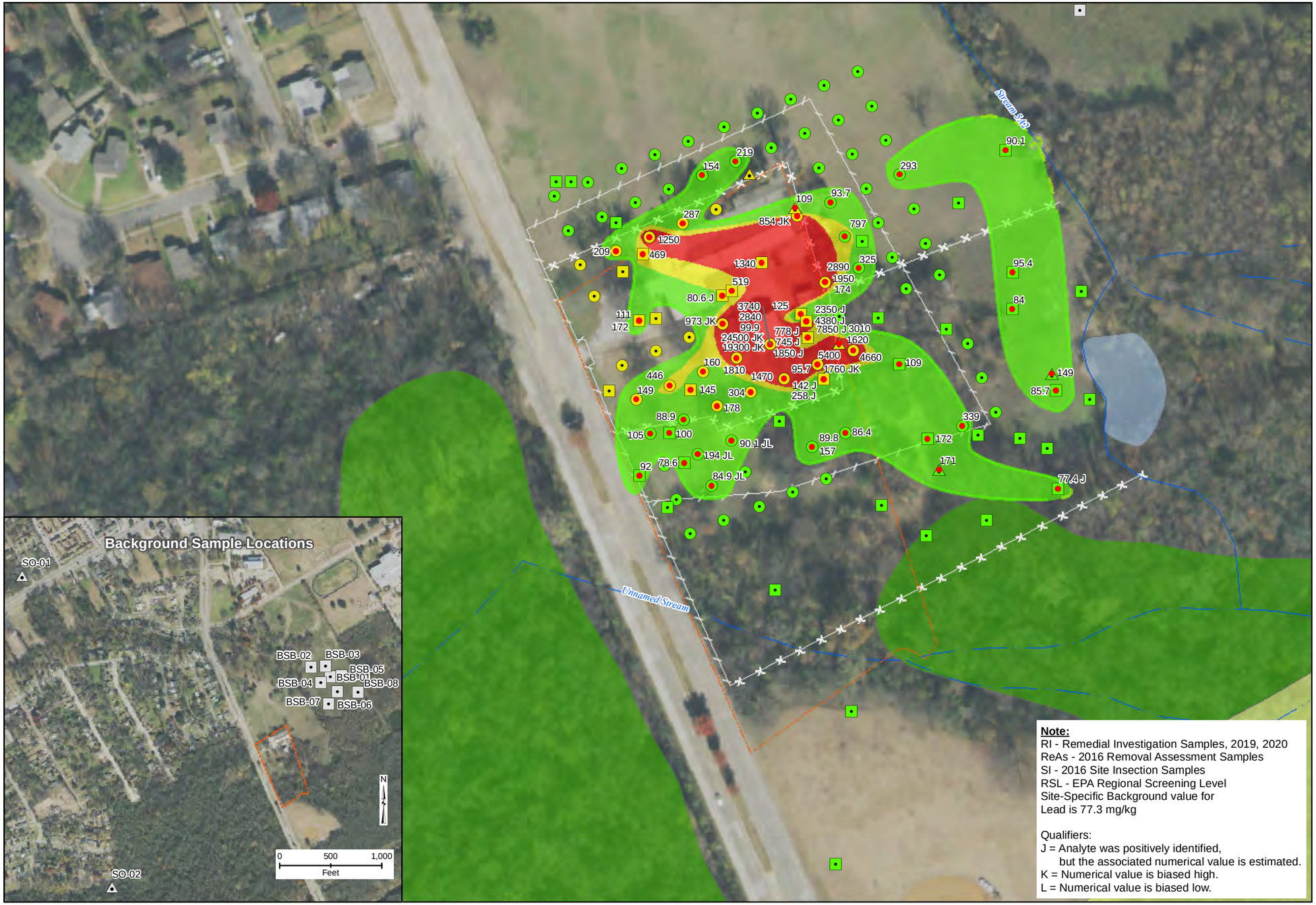
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Site-Specific Background value for Lead is 77.3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-11
Site-Specific Background Exceedances for Lead in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsPbBg.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Lead Isoconcentration

- >77.3 and <400 mg/kg Exceeds Background Value
- >400 and <800 mg/kg Exceeds Residential RSL
- >800 mg/kg Exceeds Industrial RSL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Figure 5-12
Site-Specific Background Exceedances and Isoconcentrations for Lead in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsPbBgIso.mxd EA-Dallas jschwertz

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Residential Soil RSL value for Mercury is 23 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-13
Residential Soil RSL Exceedances for Mercury in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsHgRe.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Commercial/Industrial Soil RSL value for Mercury is 350 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-14
Commercial/Industrial Soil RSL Exceedances for Mercury in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsHgIn.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds Ecological Benchmark

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

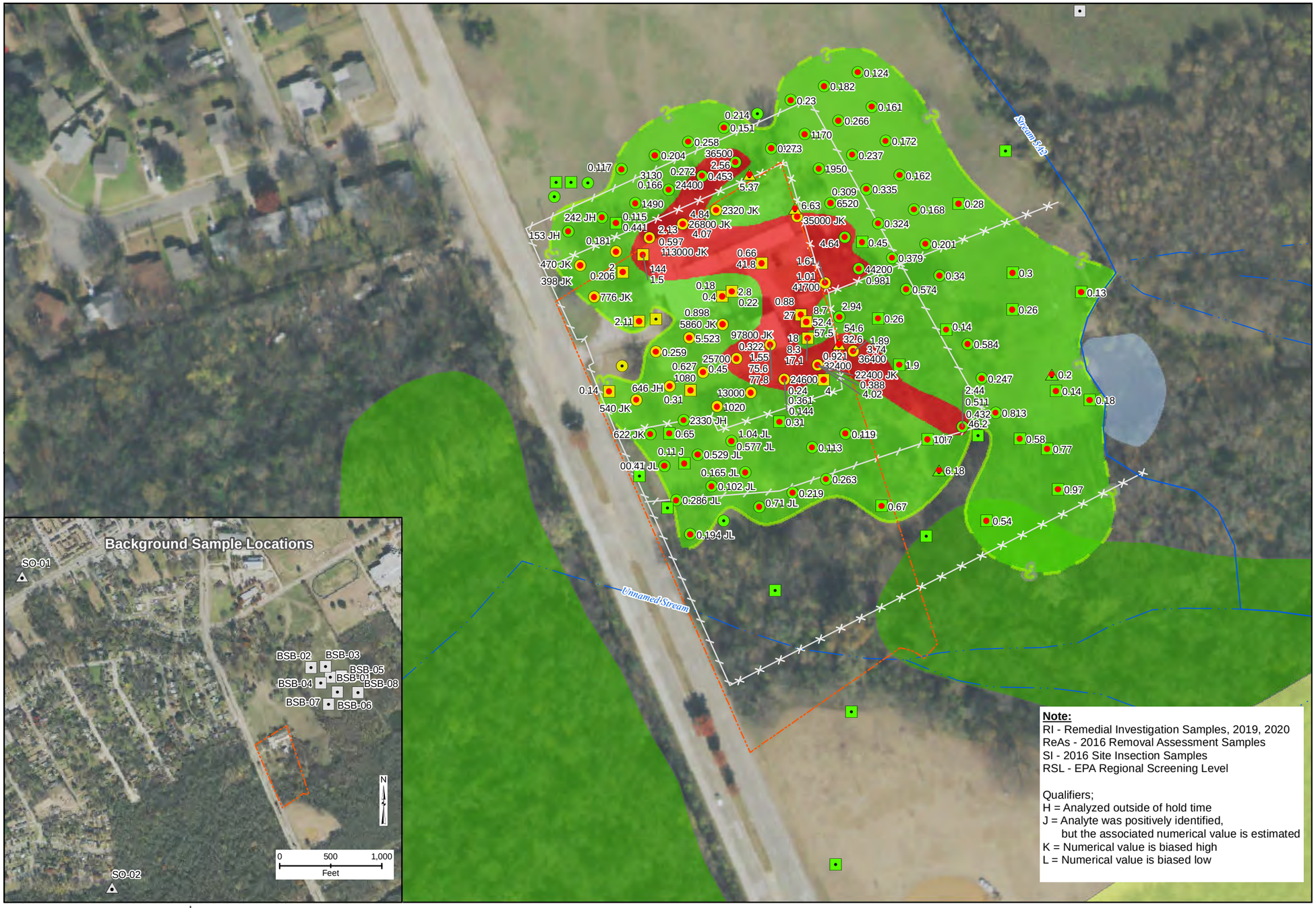
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Ecological Benchmark value for Mercury is 0.1 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.6 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-15
Ecological Benchmark Exceedances for Mercury in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsHgEco.mxd EA-Dallas jschwertz



Legend

- Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Mercury Isoconcentration

- >0.1 and <23 mg/kg Exceeds Ecological Benchmark
- > 23 mg/kg Exceeds Residential RSL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-16
Isoconcentration Map for Mercury in Surface Soil

2020-09-22 M:\Federal\EPA\RAC III\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsHgIso.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Residential Soil RSL value for Arsenic is 0.68 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-17
Residential Soil RSL Exceedances for Arsenic in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsAsRe.mxd EA-Dallas jschwertz

Legend

- Detected Result Exceeds RSL

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
RSL - Regional Screening Level
Commercial/Industrial Soil RSL value for Arsenic is 3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-18
Commercial/Industrial Soil RSL Exceedances for Arsenic in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsAsIn.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

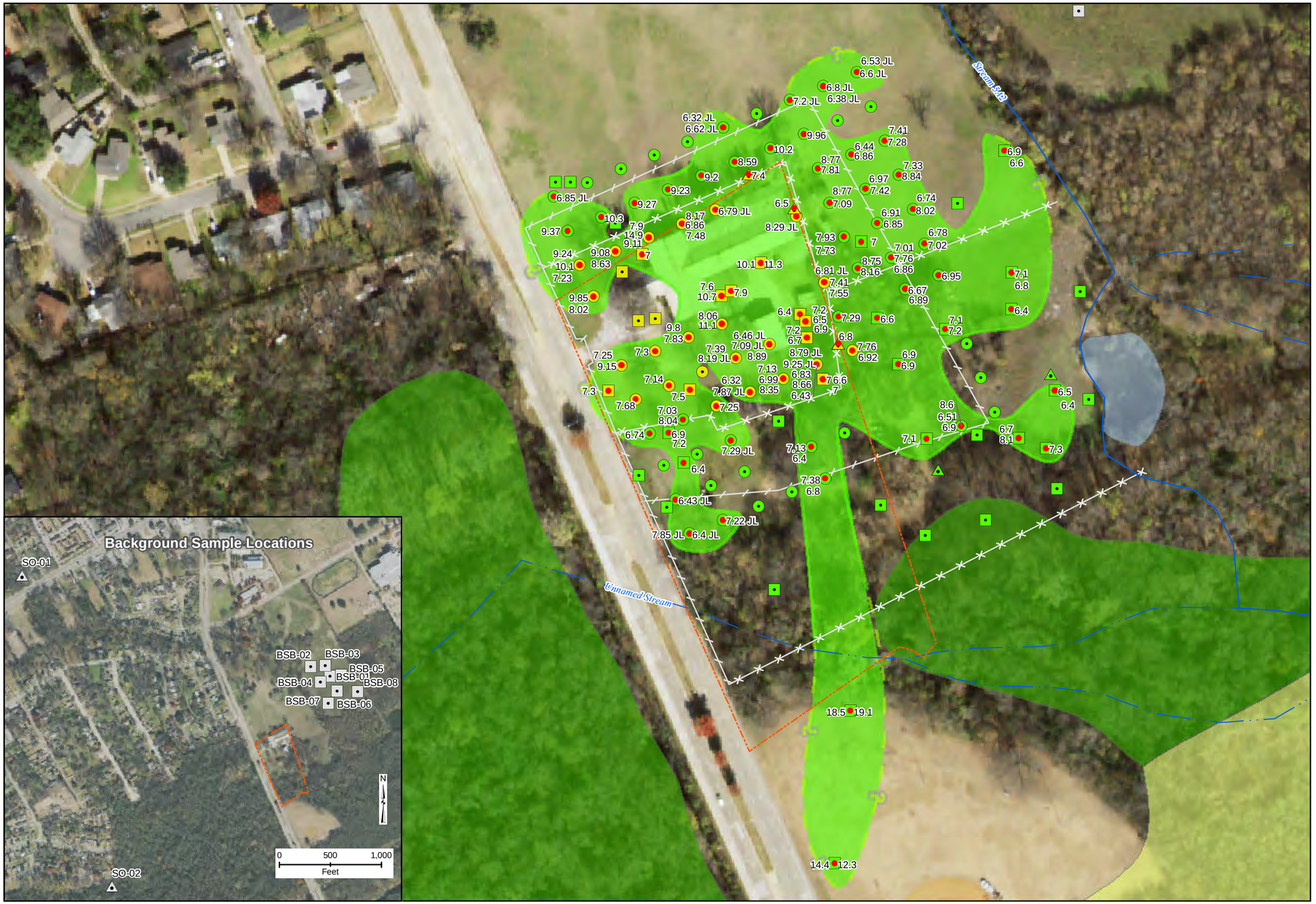
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Site-Specific Background value for Arsenic is 6.305 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-19
Site-Specific Background Exceedances for Arsenic in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsAsBg.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

- Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Arsenic Isoconcentration

- >6.3 mg/kg Exceeds Background Value
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Site-Specific Background value for
Arsenic is 6.305 mg/kg

Figure 5-20
Site-Specific Background Exceedances and Isoconcentrations for Arsenic in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsAsBgIso.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds Ecological Benchmark

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Ecological Benchmark value for Chromium is 23 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.6 Meter DOQQ, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-21
Ecological Benchmark Exceedances for Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCrEco.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

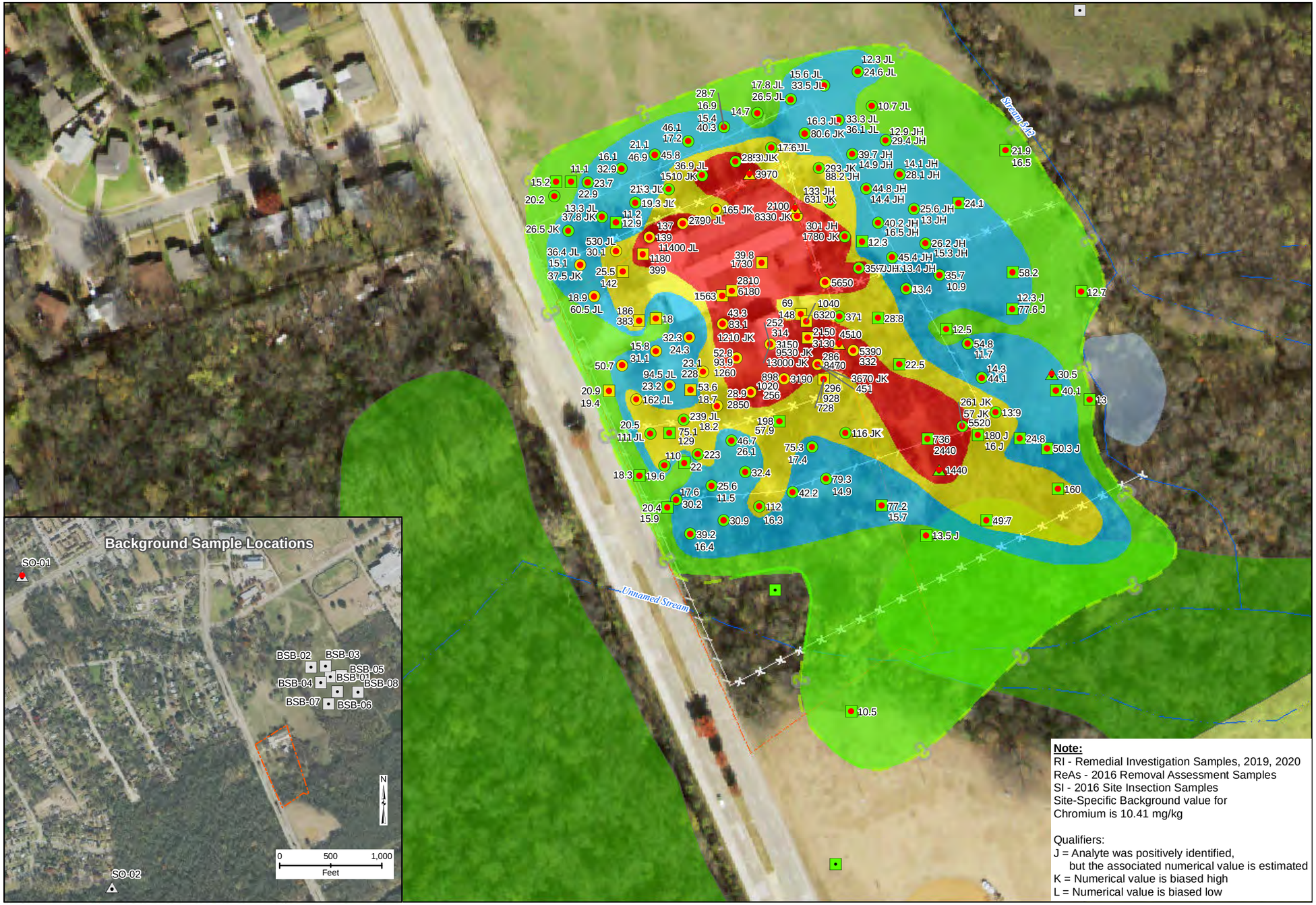
Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Site-Specific Background value for Chromium is 10.41 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-22
Site-Specific Background Exceedances for Chromium in Surface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsCrBg.mxd EA-Dallas jschwertz



Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
Site-Specific Background value for Chromium is 10.41 mg/kg

Qualifiers:
J = Analyte was positively identified, but the associated numerical value is estimated
K = Numerical value is biased high
L = Numerical value is biased low

N

0 140 280
Feet

Legend

- Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Process Area, ReAs
- Process Area, RI
- Process Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Chromium Isoconcentration

- >10.41 and <23 mg/kg Exceeds Background Value
- >23 and <100 mg/kg Exceeds Ecological Benchmark
- >100 and <1000 mg/kg
- >1000 mg/kg
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-23
Site-Specific Background Exceedances and Isoconcentrations for Chromium in Surface Soil

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N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Subsurface Soil Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RSL - Regional Screening Level
Residential Soil RSL for
Hexavalent Chromium is 0.3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-24
Residential Soil RSL Exceedances
for Hexavalaent Chromium in Subsurface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbCr6Re.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Subsurface Soil Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RSL - Regional Screening Level
Industrial Soil RSL for
Hexavalent Chromium is 6.3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-25
Industrial Soil RSL Exceedances
for Hexavalaent Chromium in Subsurface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbCr6In.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Subsurface Soil Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

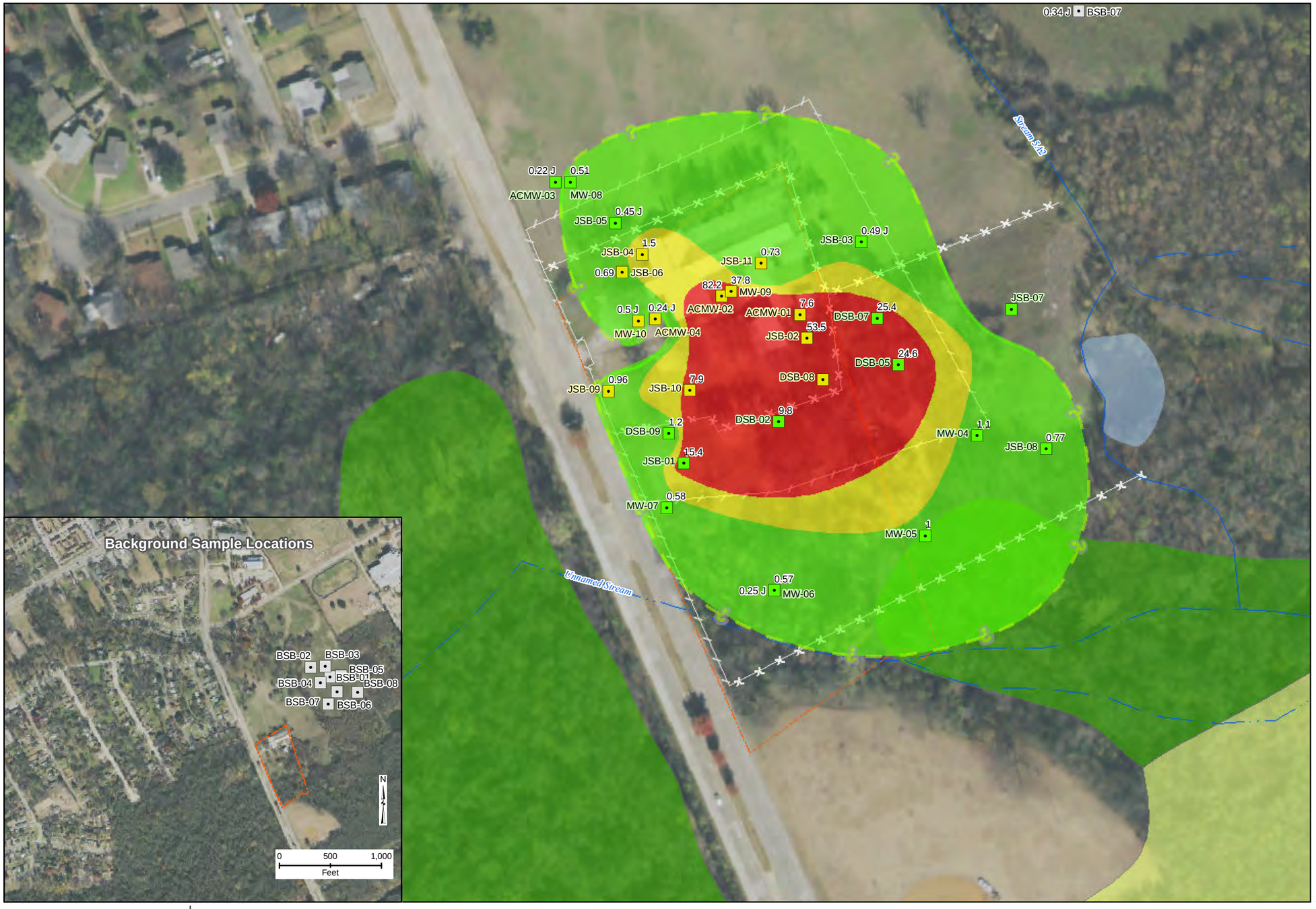
Note:
RSL - Regional Screening Level
Subsurface Soil Site-Specific Background for Hexavalent Chromium is 1.435 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-26
Site-Specific Background Exceedances
for Hexavalaent Chromium in Subsurface Soil

2020 -09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbCr6Bg.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit

Hexavalent Chromium Isoconcentration

- >0.3 and <1.435 mg/kg Exceeds Residential RSL
- >1.435 and <6.3 mg/kg Exceeds Background Value
- >6.3 mg/kg Exceeds Industrial RSL
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

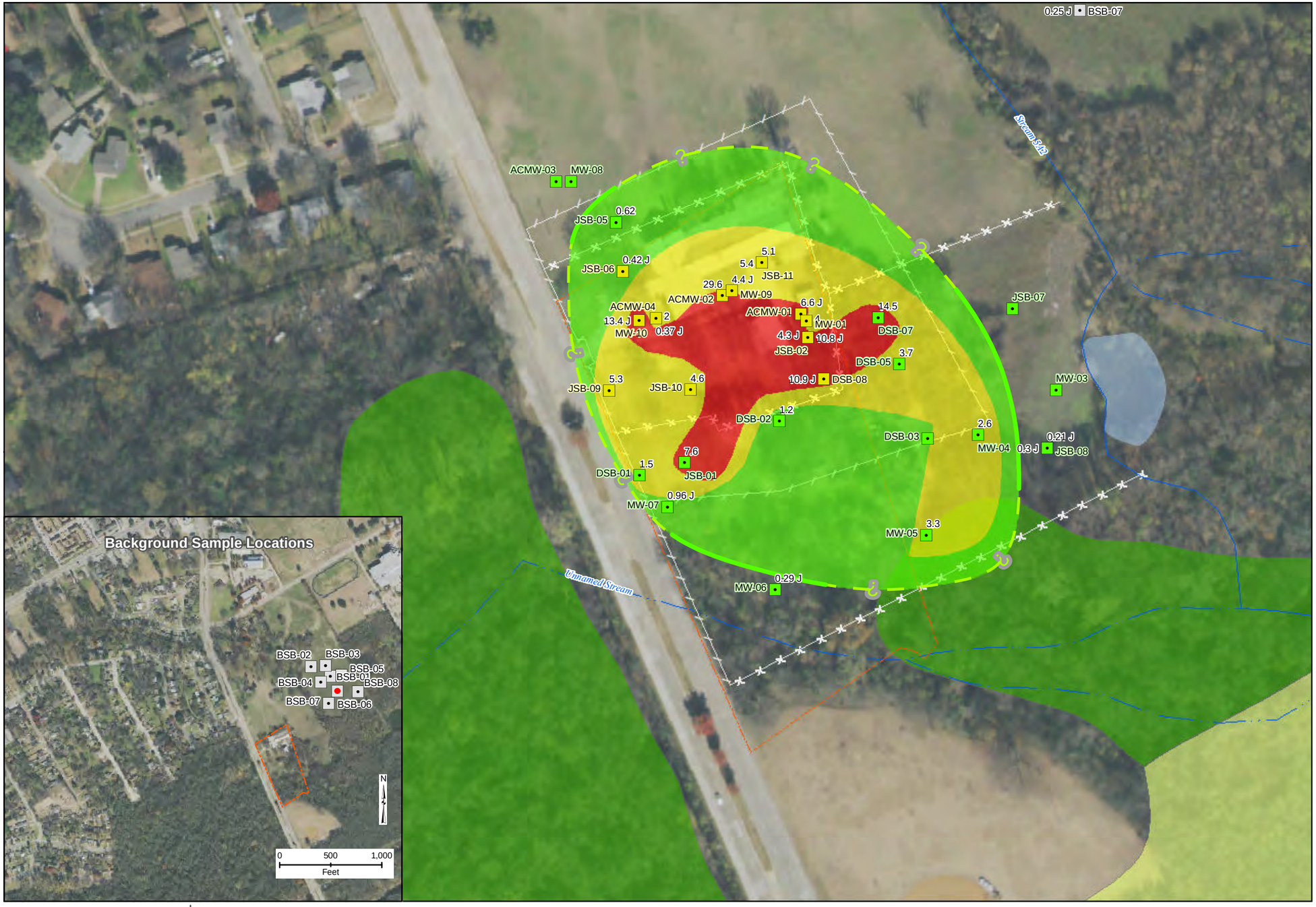
Note:
mg/kg - milligrams per kilogram
Site-Specific Background value for subsurface Hexavalent Chromium is 1.435 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-27
Site-Specific Background Exceedances and Isoconcentrations for Hexavalaent Chromium in Subsurface Soil 2 to 5 feet Below Ground Surface

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_ShCr6_02.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background

Hexavalent Chromium Isoconcentration

- >0.3 and <1.435 mg/kg Exceeds Residential RSL
- >1.435 and <6.3 mg/kg Exceeds Background Value
- >6.3 mg/kg Exceeds Industrial RSL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

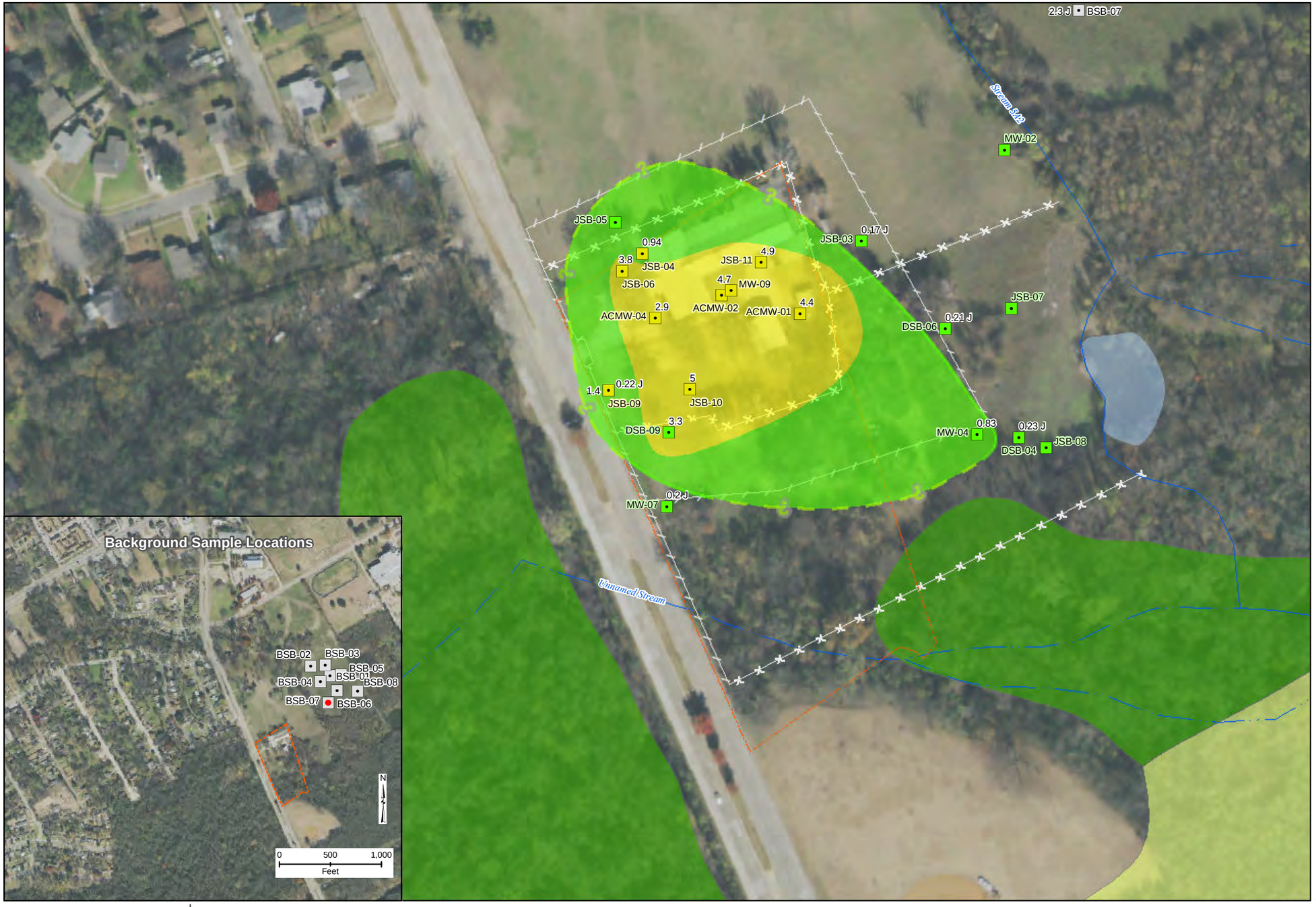
Note:
mg/kg - milligrams per kilogram
Site-Specific Background value for subsurface Hexavalent Chromium is 1.435 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-28
Site-Specific Background Exceedances and Isoconcentrations for Hexavalaent Chromium in Subsurface Soil 5 to 10 Feet Below Ground Surface

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbCr6_05.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background

Hexavalent Chromium Isoconcentration

- >0.3 and <1.435 mg/kg Exceeds Residential RSL
- >1.435 and <6.3 mg/kg Exceeds Background Value
- >6.3 mg/kg Exceeds Industrial RSL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
mg/kg - milligrams per kilogram
Site-Specific Background value for subsurface Hexavalent Chromium is 1.435 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-29
Site-Specific Background Exceedances and Isoconcentrations for Hexavalaent Chromium in Subsurface Soil 10 to 15 Feet Below Ground Surface

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbCr6_10.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Subsurface Soil Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RSL - Regional Screening Level
Residential Soil RSL for
Arsenic is 0.68 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-30
Residential Soil RSL Exceedances
for Arsenic in Subsurface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI 2020\LP_SbAsRe.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

- Detected Result Exceeds RSL

Subsurface Soil Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RSL - Regional Screening Level
Industrial Soil RSL for
Arsenic is 3 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-31
Industrial Soil RSL Exceedances
for Arsenic in Subsurface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbAsIn.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

Detected Result Exceeds Site-Specific Background Value

Subsurface Soil Sample Locations

- Process Area
- Open Area
- Background
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
RSL - Regional Screening Level
Subsurface Soil Site-Specific Background for Arsenic is 7.779 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-32
Site-Specific Background Exceedances for Arsenic in Subsurface Soil

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbAsBg.mxd EA-Dallas jschwertz

N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background

Arsenic Isoconcentration

- >0.68 and <3.0 mg/kg Exceeds Residential RSL
- >3.0 and <7.779 mg/kg Exceeds Industrial RSL
- >7.779 mg/kg Exceeds Background Value
- Estimated Isoconcentration Limit
- Inferreded Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

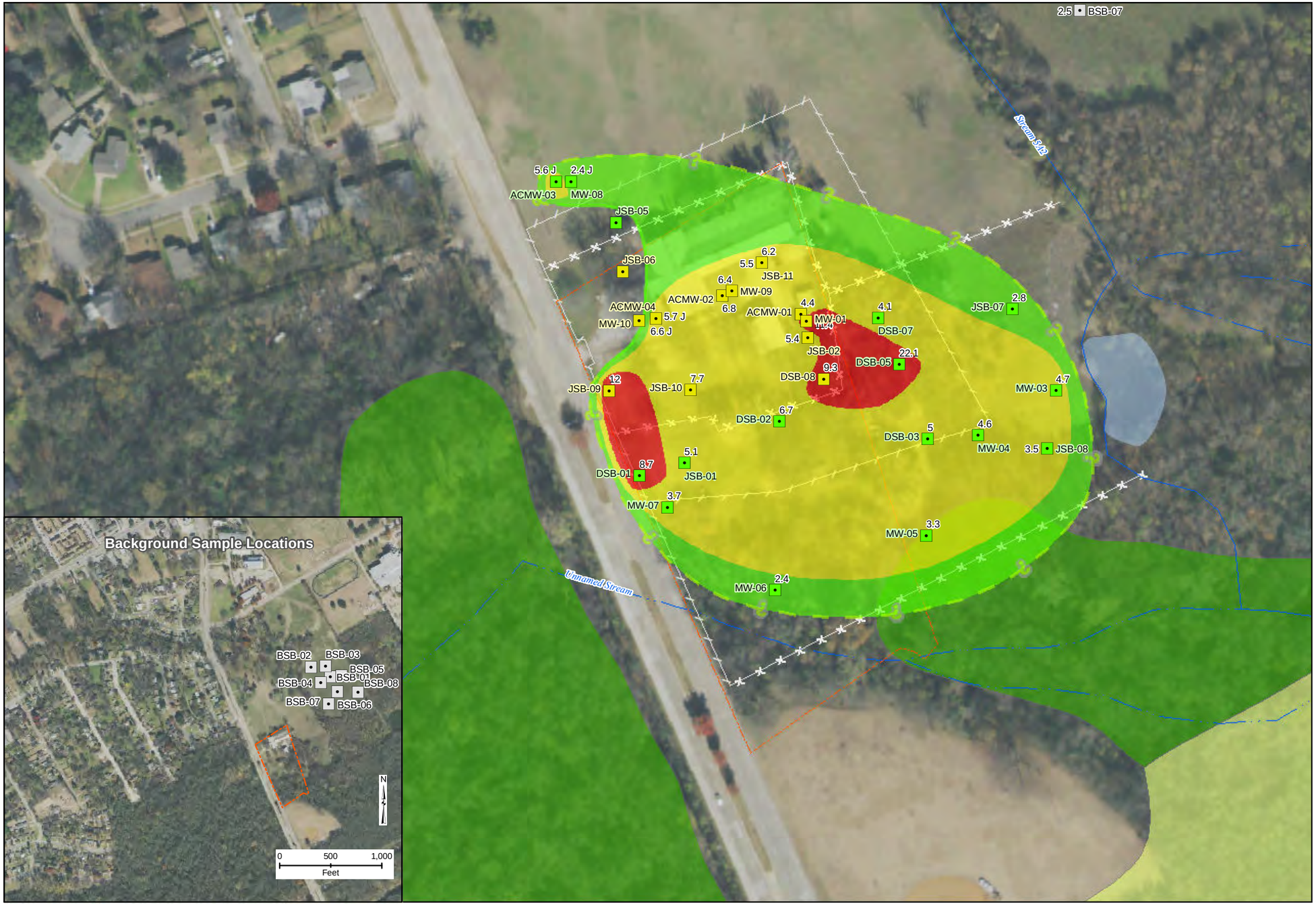
Note:
mg/kg - milligrams per kilogram
RSL - Regional Screening Level
Residential Soil RSL for Arsenic is 0.68 mg/kg
Commercial/Industrial Soil RSL for Arsenic is 3.0 mg/kg
Site-Specific Background value for subsurface Arsenis is 1.779 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-33
Site-Specific Background Exceedances and Isoconcentrations for Arsenic in Subsurface Soil 2 to 5 feet Below Ground Surface

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbAs_02.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background

Arsenic Isoconcentration

- >0.68 and <3.0 mg/kg Exceeds Residential RSL
- >3.0 and <7.779 mg/kg Exceeds Industrial RSL
- >7.779 mg/kg Exceeds Background Value
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

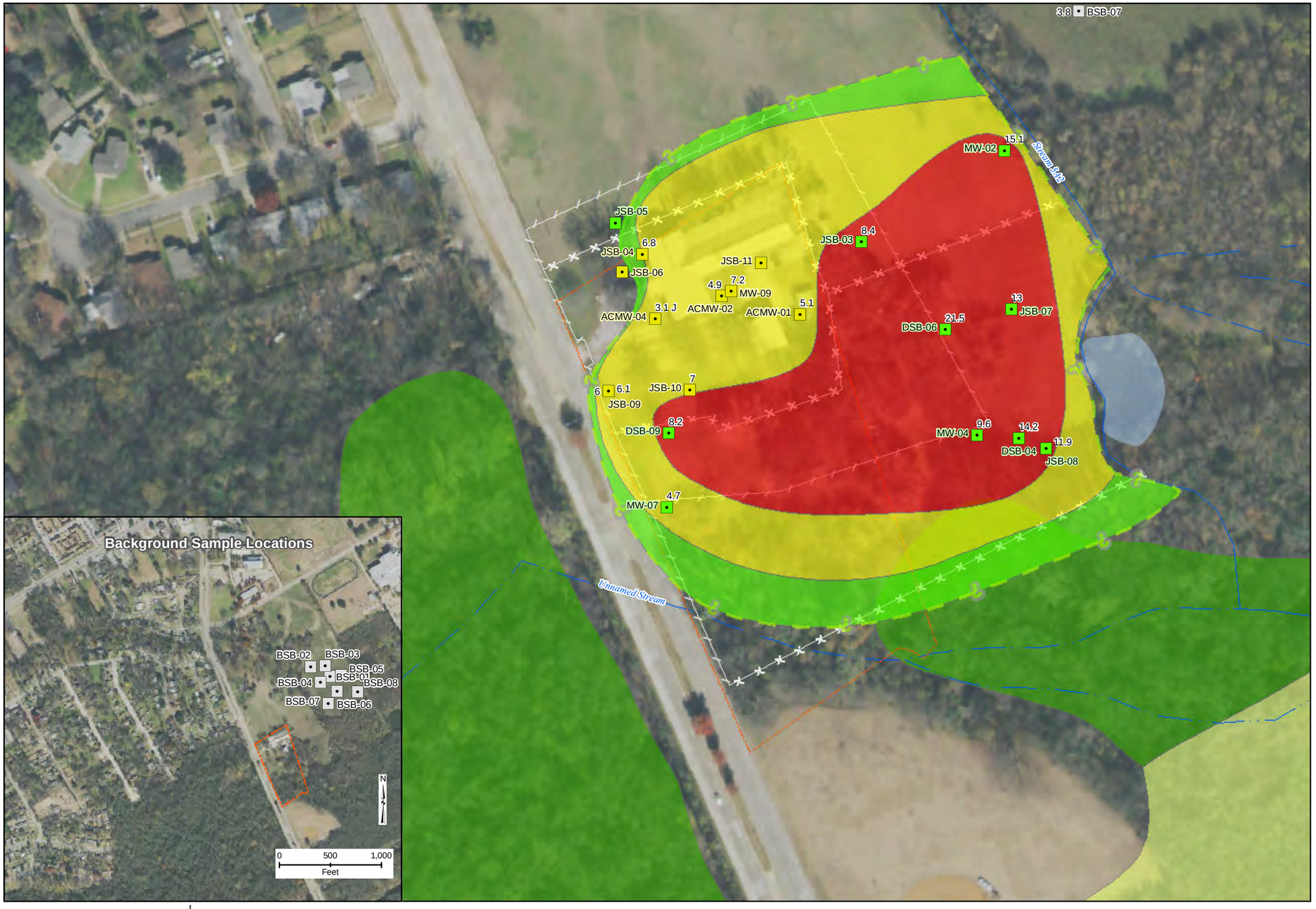
Note:
mg/kg - milligrams per kilogram
RSL - Regional Screening Level
Residential Soil RSL for Arsenic is 0.68 mg/kg
Commercial/Industrial Soil RSL for Arsenic is 3.0 mg/kg
Site-Specific Background value for subsurface Arsenis is 1.779 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-34
Site-Specific Background Exceedances and Isoconcentrations for Arsenic in Subsurface Soil 5 to 10 Feet Below Ground Surface

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbAs_05.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Sample Locations

- Process Area
- Open Area
- Background

Arsenic Isoconcentration

- >0.68 and <3.0 mg/kg Exceeds Residential RSL
- >3.0 and <7.779 mg/kg Exceeds Industrial RSL
- >7.779 mg/kg Exceeds Background Value
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
mg/kg - milligrams per kilogram
RSL - Regional Screening Level
Residential Soil RSL for Arsenic is 0.68 mg/kg
Commercial/Industrial Soil RSL for Arsenic is 3.0 mg/kg
Site-Specific Background value for subsurface Arsenis is 1.779 mg/kg

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-35
Site-Specific Background Exceedances and Isoconcentrations for Arsenic in Subsurface Soil 10 to 15 Feet Below Ground Surface

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SbAs_10.mxd EA-Dallas jschwertz

N

0 150 300
Feet

Legend

- Detected Result Exceedance
- Remedial Investigation Sample
- Site Inspection Sample, 2016
- On-site Wells
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
µg/L - microgram per liter
TCEQ - Texas Commission on Enviromental Quality
TCEQ Surface Water Quality Standards for Ingestion of Fish Only for Lead is 3.83 µg/L

Imagery Source:
National Agriculture Imagery Program 2018 0.6 Meter DOQQ

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-36
TCEQ Surface Water Quality Standards for Ingestion of Fish Only Exceedances for Total Lead in Surface Water

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI 2020\LP_SwPbFoT.mxd EA-Dallas jschwertz

N

0 150 300
Feet

Legend

- Detected Result Exceedance
- Remedial Investigation Sample
- Site Inspection Sample, 2016
- On-site Wells
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
µg/L - microgram per liter
TCEQ Surface Water Quality Standards for Ingestion of Fish Only for Lead is 9.48 µg/L

Imagery Source:
National Agriculture Imagery Program 2018 0.6 Meter DOQQ

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-37
TCEQ Surface Water Quality Standards for Ingestion of Fish Only Exceedances for Dissolved Lead in Surface Water

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI 2020\LP_SwPhEcoD.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA Tap Water RSL of 0.035 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

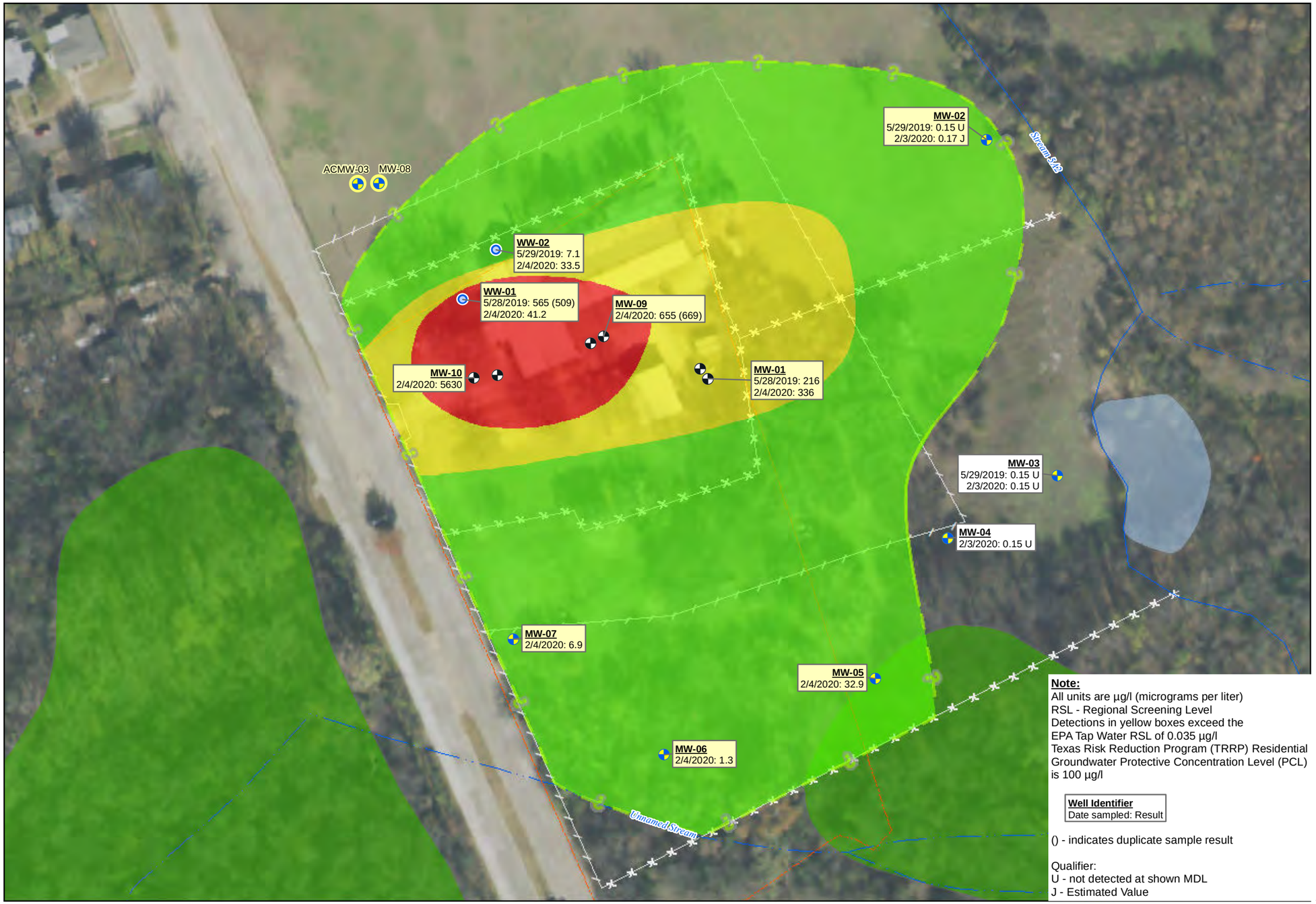
Qualifier:
U - not detected at shown MDL
J - Estimated Value

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-38
Hexavalent Chromium Detections in Groundwater

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI 2020\LP_GwCr6Res.mxd EA-Dallas jschwertz



Note:
All units are µg/l (micrograms per liter)
RSL - Regional Screening Level
Detections in yellow boxes exceed the EPA Tap Water RSL of 0.035 µg/l
Texas Risk Reduction Program (TRRP) Residential Groundwater Protective Concentration Level (PCL) is 100 µg/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Hexavalent Chromium Isoconcentration

Perched Water Bearing Zone

- >0.035 and <100 µg/l Exceeds Tap Water RSL
- >100 and <500 µg/l Exceeds TRRP Residential PCL
- >500 µg/l Exceeds TRRP Residential PCL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-39
Isoconcentration Map for Hexavalent Chromium Detections in the Perched Groundwater Zone

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCr6ResPerch.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Hexavalent Chromium Isoconcentration

Austin Chalk Water Bearing Zone

- >0.035 and <100 µg/l Exceeds Tap Water RSL
- >100 µg/l Exceeds TRRP Residential PCL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
All units are µg/l (micrograms per liter)
RSL - Regional Screening Level
Detections in yellow boxes exceed the EPA Tap Water RSL of 0.035 µg/l
Texas Risk Reduction Program (TRRP) Residential Groundwater Protective Concentration Level (SL) is 100 µg/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-40
Isoconcentration Map for Hexavalent Chromium Detections in the Austin Chalk Monitoring Wells

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCr6ResAC.mxd EA-Dallas jischwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA MCL of 100 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-41
Dissolved Chromium Detections in Groundwater

2020-09-22 M:\Federal\EPA\RAC III\0168-Lane RI-FS_309\GIS\MXDs\RI 2020\LP_GwCrDRes.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA MCL of 100 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

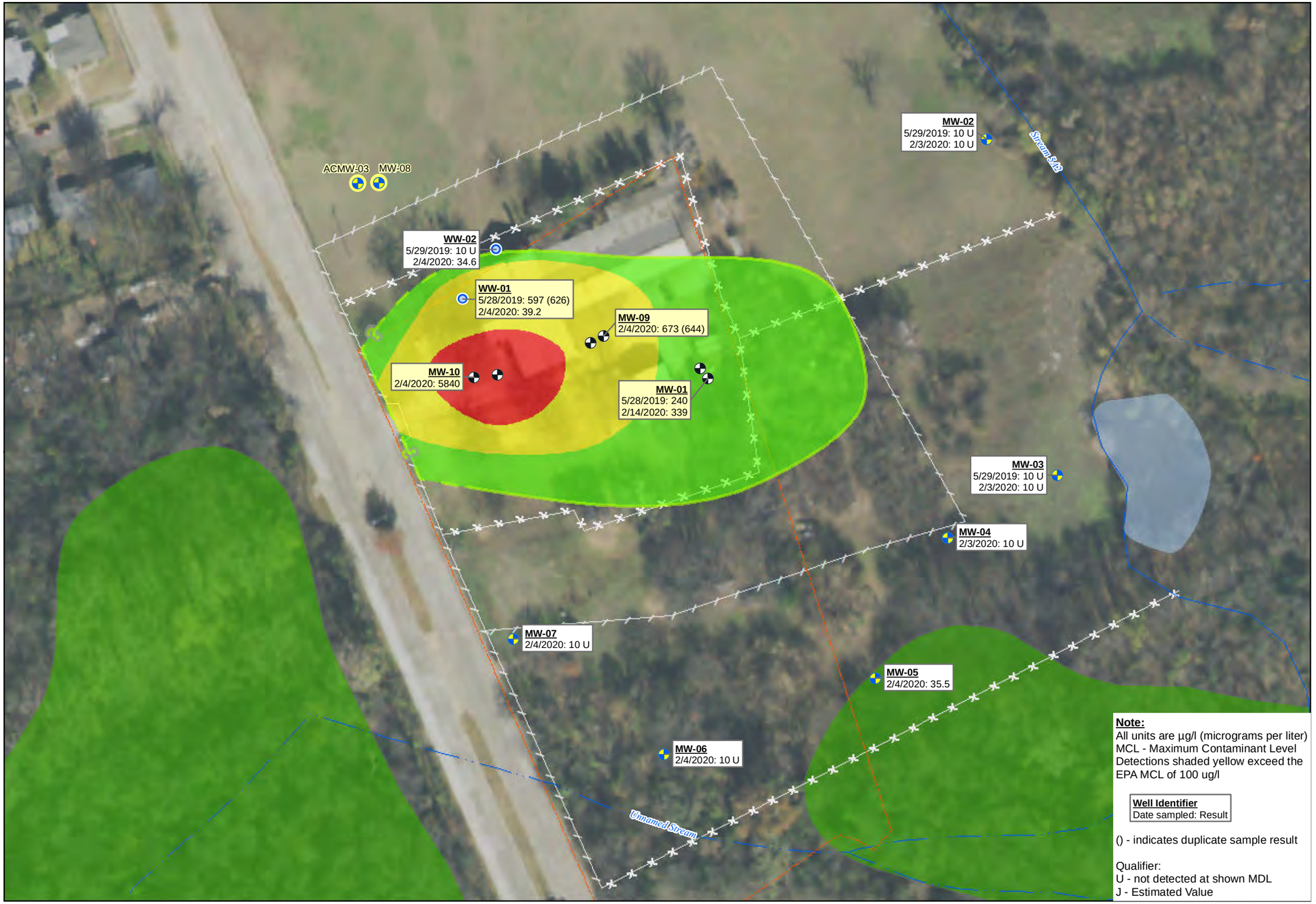
Qualifier:
U - not detected at shown MDL
J - Estimated Value

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-42
Total Chromium Detections in Groundwater

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCrTRes.mxd EA-Dallas jschwertz



Note:
All units are µg/l (micrograms per liter)
MCL - Maximum Contaminant Level
Detections shaded yellow exceed the EPA MCL of 100 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Dissolved Chromium Isoconcentration

Perched Water Bearing Zone

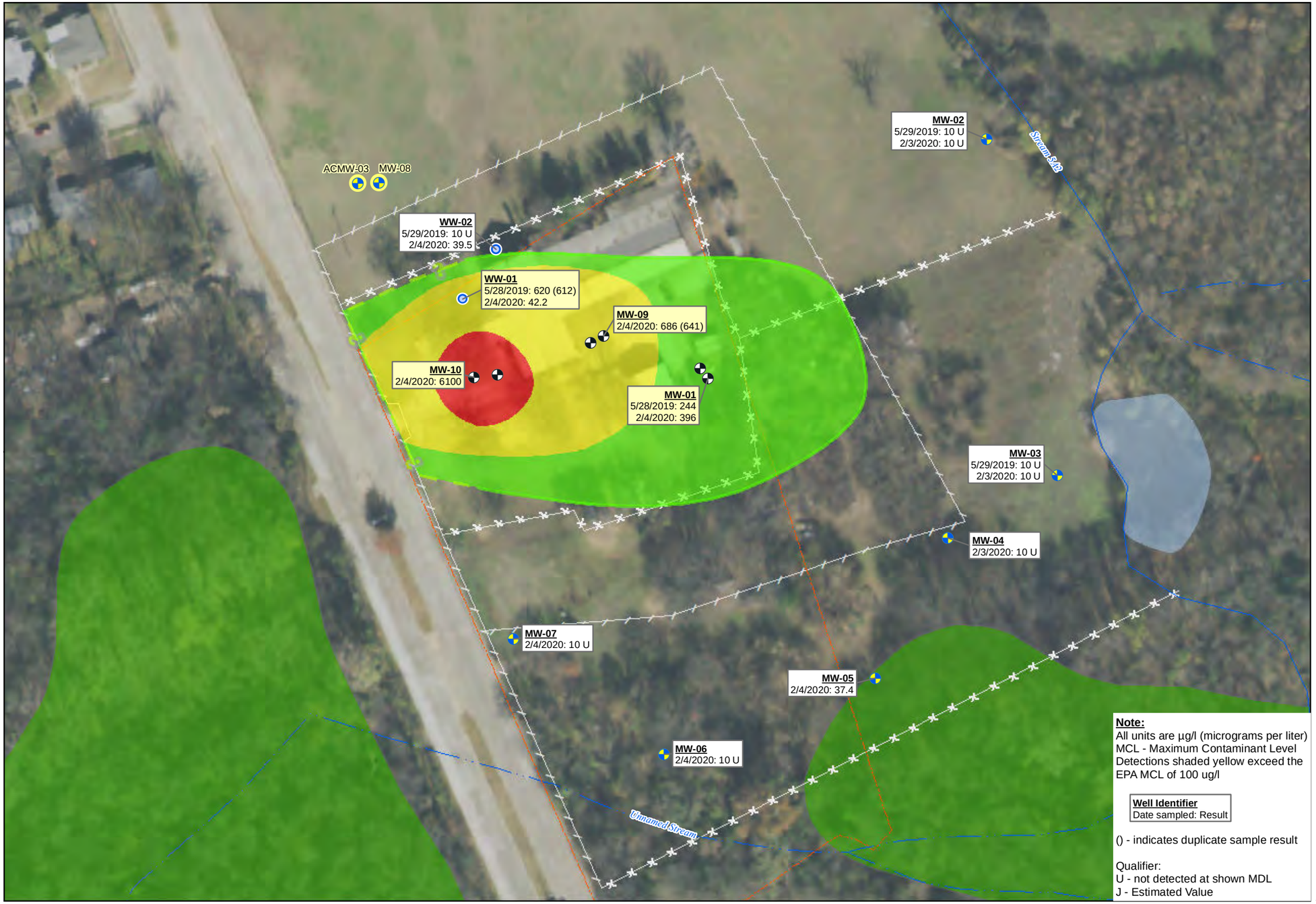
- >100 and <500 µg/l Exceeds EPA MCL
- >500 and <1000 µg/l Exceeds five times EPA MCL
- >1000 µg/l Exceeds ten times EPA MCL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-43
Isoconcentration Map for Dissolved Chromium Detections in the Perched Groundwater Zone

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCrDResPerched.mxd EA-Dallas jschwertz



Note:
All units are µg/l (micrograms per liter)
MCL - Maximum Contaminant Level
Detections shaded yellow exceed the EPA MCL of 100 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Total Chromium Isoconcentration

Perched Water Bearing Zone

- >100 and <500 µg/l Exceeds EPA MCL
- >500 and <1000 µg/l Exceeds five times EPA MCL
- >1000 µg/l Exceed ten times EPA MCL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-44
Isoconcentration Map for Total Chromium Detections in the Perched Groundwater Zone

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCrTResPerch.mxd EA-Dallas jschwertz

Note:
All units are µg/l (micrograms per liter)
MCL - Maximum Contaminant Level
Detections shaded yellow exceed the EPA MCL of 100 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Dissolved Chromium Isoconcentration

Austin Chalk Water Bearing Zone

- >100 µg/l Exceeds EPA MCL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-45
Isoconcentration Map for Dissolved Chromium Detections in the Austin Chalk Monitoring Wells

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCrDResAC.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Total Chromium Isoconcentration

Austin Chalk Water Bearing Zone

- >100 µg/l Exceeds EPA MCL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA Maximun Contaminant Level (MCL) of 100 ug/l

Well Identifier
Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-46
Isoconcentration Map for Total Chromium Detections in the Austin Chalk Monitoring Wells

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwCrTResAC.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Note:
All units are µg/l (micrograms per liter)
ACMW wells were ignored for plume delineation
Detections shaded yellow exceed the Texas Risk Reduction Program (TRRP) Protective Concentration Level (PCL) of 0.093 ug/l for Perfluorohexanesulfonic Acid

Well Identifier
Analyte: Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-47
Perfluorohexanesulfonic Acid Detections in Groundwater

2020-09-22 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwPfRes.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA Drinking Water Health Advisory for Perfuorohexanesulfonic Acid and Perfuorooctanesulfonic Acid combined of 0.07 µg/l

Well Identifier
Analyte: Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

Legend

Monitoring Well Locations

- Developed Area
- Open Area
- Water Well
- Dry Monitoring Well
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-48
Perfluorooctanesulfonic Acid Detections in Groundwater

2020-11-18 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwPoRes.mxd EA-Dallas jschwertz

N

0 100 200
Feet

Note:
All units are µg/l (micrograms per liter)
ACMW wells were ignored for plume delineation
Detections shaded yellow exceed the Texas Risk Reduction Program (TRRP) Protective Concentration Level (PCL) of 0.093 ug/l for Perfluorohexanesulfonic Acid

Well Identifier
Analyte: Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

Legend

Monitoring Well Locations

- Process Area
- Open Area
- Water Well
- Dry Monitoring Well

Perfluorohexanesulfonic acid

Isoconcentration

- >0.093 µg/l Exceeds TRRP Resdential PCL
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2018, 0.6 Meter, Texas Strategic Mapping Program, 2018.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-49
Isoconcentration Map for Perfluorohexanesulfonic Acid Detections in the Perched Groundwater Zone

2020-11-18 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwPhRes.mxd EA-Dallas jschwertz

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA Drinking Water Health Advisory for Perfuorohexanesulfonic Acid (PFOS) and Perfuorooctanesulfonic Acid (PFOA) combined of 0.07 µg/l

Well Identifier
Analyte: Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Developed Area
- Open Area
- Water Well
- Dry Monitoring Well

Perfluorooctanesulfonic acid

Isoconcentration

- >0.07 and <0.7 µg/l Exceeds EPA Drinking Water Advisory for PFOS and PFOA combined
- >0.7 µg/l Exceeds 10 times EPA Drinking Water Advisory for PFOS and PFOA combined
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-50
Isoconcentration Map for Perfluorooctanesulfonic Acid Detections in the Perched Groundwater Zone

2020-11-18 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwPoResPerched.mxd EA-Dallas jschwertz

Note:
All units are µg/l (micrograms per liter)
Detections shaded yellow exceed the EPA Drinking Water Health Advisory for Perfuorohexanesulfonic Acid (PFOS) and Perfuorooctanesulfonic Acid (PFOA) combined of 0.07 µg/l

Well Identifier
Analyte: Date sampled: Result

() - indicates duplicate sample result

Qualifier:
U - not detected at shown MDL
J - Estimated Value

N

0 100 200
Feet

Legend

Monitoring Well Locations

- Developed Area
- Open Area
- Water Well
- Dry Monitoring Well

Perfluorooctanesulfonic acid

Isoconcentration

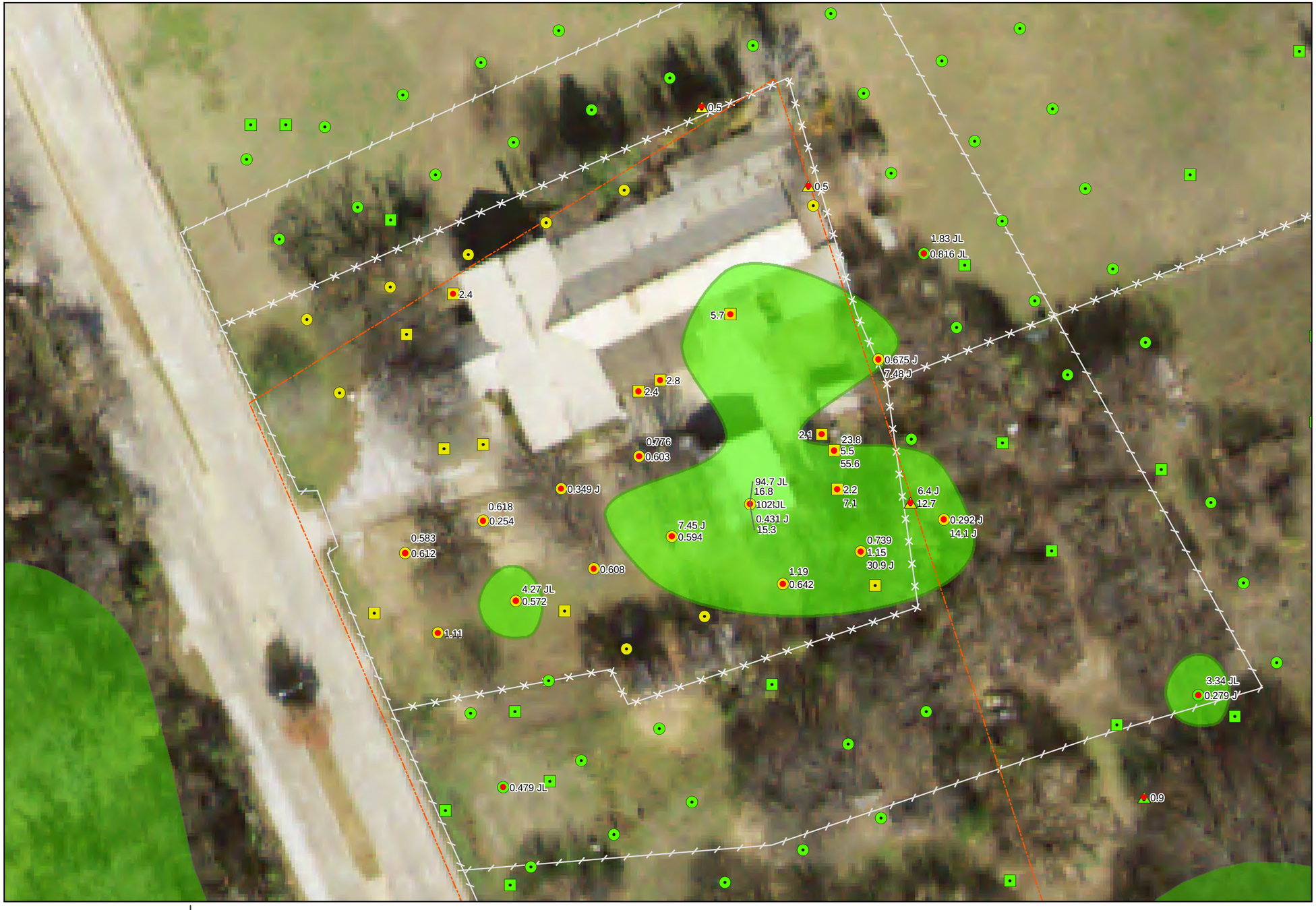
- >0.07 and <0.7 µg/l Exceeds EPA Drinking Water Advisory for PFOS and PFOA combined
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Figure 5-51
Isoconcentration Map for Perfluorooctanesulfonic Acid Detections in the Austin Chalk Groundwater Zone

2020-11-18 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_GwPoResAc.mxd EA-Dallas jschwertz



N

0 60 120
Feet

Legend

Detected Result in mg/kg

Surface Soil Sample Locations

- Developed Area, ReAs
- Developed Area, RI
- Developed Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Antimony Isoconcentration

- > 3.1 mg/kg Exceeds Residential Soil Screening Level
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

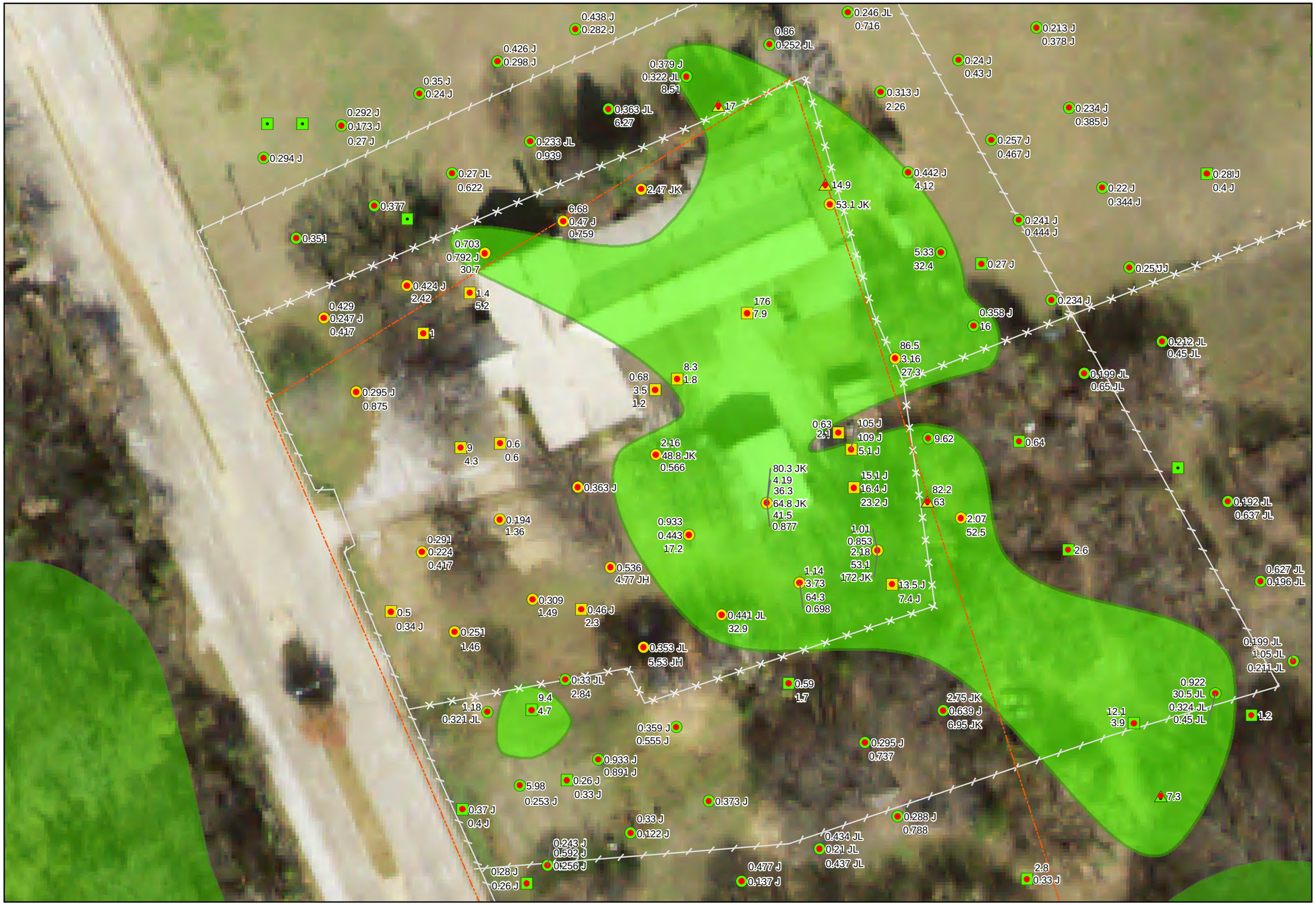
Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples
mg/kg - milligrams per kilogram
U.S. EPA Residential Soil Screening value for Antimony is 7.1 mg/kg

Figure 7-1
Detections and Isoconcentrations for Antimony in Surface Soil

2020-09-08 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\SLERA\LP_SsSbBgIso.mxd EA-Dallas jschwertz



N

0 60 120
Feet

Legend

Detected Result in mg/kg

Surface Soil Sample Locations

- Developed Area, ReAs
- Developed Area, RI
- Developed Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Cadmium Isoconcentration

- >7.1 mg/kg Exceeds Residential Soil Screening Level
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

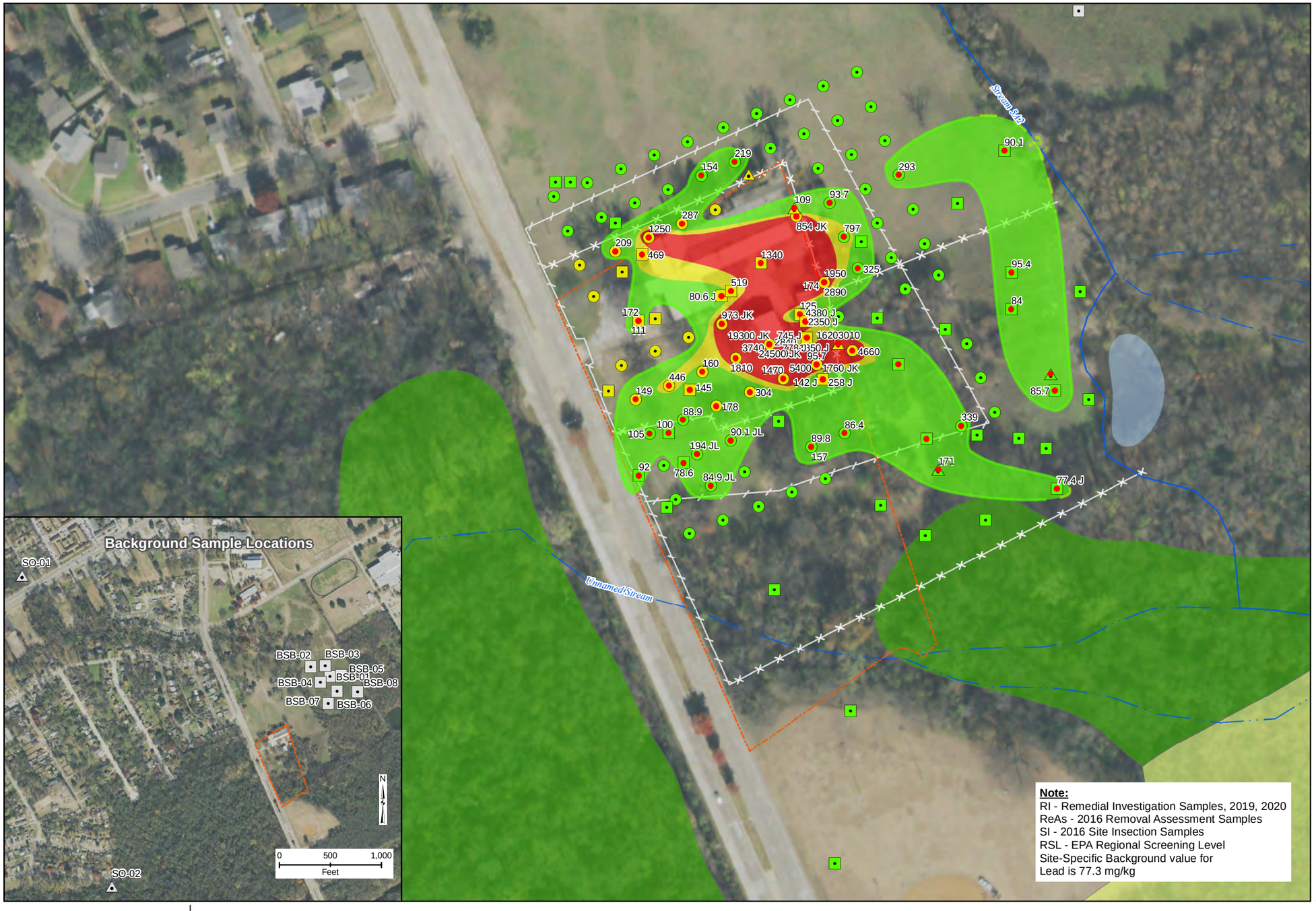
Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Note:
RI - Remedial Investigation Samples, 2019, 2020
ReAs - 2016 Removal Assessment Samples
SI - 2016 Site Insection Samples

mg/kg - milligrams per kilogram
U.S. EPA Residential Soil Screening value for Cadmium is 7.1 mg/kg

Figure 7-2
Detections and Isoconcentrations for Cadmium in Surface Soil

2020-09-08 M:\Federal\EPA\RAC II\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\SLERA\LP_SsCdBgIso.mxd EA-Dallas jschwertz



N

0 140 280
Feet

Legend

Detected Result Exceeds Site-Specific Background Value

Surface Soil Sample Locations

- Developed Area, ReAs
- Developed Area, RI
- Developed Area, SI
- Open Area, ReAs
- Open Area, RI
- Open Area, SI
- Background, RI
- Background, SI

Lead Isoconcentration

- >77.3 and <400 mg/kg Exceeds Background Value
- >400 and <800 mg/kg Exceeds Residential RSL
- >800 mg/kg Exceeds Industrial RSL
- Estimated Isoconcentration Limit
- Inferred Isoconcentration Limit
- Approximate Site Boundary
- Stream
- Stream Seasonal
- Barbed Wire Fence fair to poor condition
- Chainlink Fence good condition
- Chainlink Gate good condition
- Freshwater Emergent Wetland
- Freshwater Forested /Shrub Wetland
- Freshwater Pond

Lane Plating Works Superfund Site
Dallas, Dallas County, Texas

Imagery Source: Site:Texas Orthoimagery Program 2015, 0.5 Meter DOQQ, Texas Strategic Mapping Program, 2015.

Figure 7-3
Detections and Isoconcentrations for Lead in Surface Soil

2020-07-09 M:\Federal\EPA\RAC III\0168-Lane RI-FS_309\GIS\MXDs\RI_2020\LP_SsPbBgIso.mxd EA-Dallas jschwertz

APPENDIX A:

SITE PHOTOS

Photo 1. Preparing for sediment collection during Phase 1 field event.

Photo 2. Sediment collection from unnamed stream down gradient of site.

Photo 3. Describing sediment properties and processing sample.

Photo 4. Surface water collection from unnamed stream during Phase 1 field event.

Photo 5. Sediment collection in small pond at LSW-3 during Phase 1.

Photo 6. Sediment collection at LSW-8.

Photo 7. Collecting GPS coordinates of sample location in unnamed stream down gradient of site during Phase 1.

Photo 8. Collection of a filtered water sample at location LSW-4.

Photo 9. Collection of sediment in stream 5A2 east of site.

Photo 10. Surface water sample collection in stream 5A2 east of site.

Photo 11. Installation of MW-02 on eastern site boundary near stream 5A2.

Photo 12. Preparing to set screen and casing at down gradient monitor well location MW-03 during Phase 1 field event.

Photo 13. Installing MW-01 south of buildings used for main operations.

Photo 14. Pumping and purging well development activities at MW-01 during Phase 1 field event.

Photo 15. Low flow water sampling collection from onsite cistern well during Phase 1 field event.

Photo 16. Collection of PFAs sample from MW-01 with isolation from other equipment and supplies during Phase 1.

Photo 17. Marking and clearing utilities at proposed well locations in preparation for Phase 2 field event activities.

Photo 18. Clearing soil boring location near wooded area south of site.

Photo 19. Collecting surface water sample at LSW-22 during Phase 2 field event.

Photo 20. View of LSW/LSED-22 location from the south at LSW/LSED-21.

Photo 21. Collecting surface water at LSW-21 during Phase 2 using a peristaltic pump.

Photo 22. Collecting sediment from core sampler at LSED-21.

Photo 23. Collection of surface water sample at BLSW-2 in stream 5A2 north of site.

Photo 24. Describing and processing sediment sample BLSED-01 in stream 5A2.

Photo 25. Collecting sediment from unnamed stream up gradient of site to the west.

Photo 26. Processing sediment at BLSED-7 in unnamed stream during Phase 2 field event.

Photo 27. Collecting surface water in unnamed stream on west of Bonnie View Road.

Photo 27. Collection of sediment at BLSED-6 during Phase 2.

Photo 28. Surface water and sediment collection at BLSED/BLSW-8. during Phase 2.

Photo 29. Collection of surface soil sample using a hand auger during Phase 2 activities.

Photo 30. Collection of soil cores from MW-04 drilled in January 2020 during Phase 2 drilling activities.

Photo 31. Shallow subsurface cores from two intervals at MW-05.

Photo 32. Setting well casing and screen at a monitor well during Phase 2 field event.

Photo 33. Preparing to collect soil samples at MW-09.

Photo 34. Augering at ACMW-02 for completion of surface casing for installation of deep monitor well.

Photo 35. Decontamination set up for augers and other drilling equipment during Phase 2 field event.

Photo 36. Installing ACMW-04 a Austin Chalk monitoring well during Phase 2 field event.

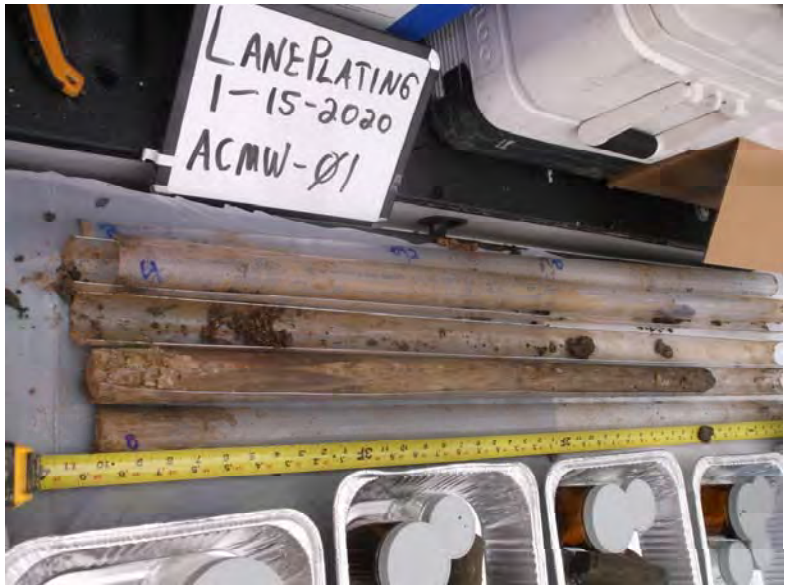


Photo 37. Soil sample collection from cores from Austin Chalk monitor well ACMW-01.

Photo 38. Installation of ACMW-03 up gradient of main Site buildings during Phase 2 drilling activities.

Photo 39. Collection of background soil samples in a representative undisturbed area northeast of site during Phase 2.

Photo 40. Finished monitor well surface completion in Phase 2.

Photo 41. Finished monitor well completion with stickup casing vault and protective bollards installed.

Photo 42. Pumping and purging activities at MW-04 for monitor well development during Phase 2.

Photo 43. Monitor well development at MW-06 in during Phase 2 field event.

Photo 44. Collection of a PFAs ground water sample at MW-02 from low flow sample technique during Phase 2 field event.

Photo 45. Low flow sampling set up at down gradient monitor well MW-06.

Photo 46. PFAs sample collection from low flow technique during Phase 2.

Photo 47. Measuring final depth to water to record water level drawdown after low flow sampling activites.

Photo 48. Collection of ground water samples at MW-01 during Phase 2 field event.

Photo 49. Discovery of abandoned dry cistern well during Phase 2.

Photo 50. Phase 1 soil and water waste from drilling and sampling activities.

Photo 51. Utilization of onsite building for storage until disposal of soil and water waste from Phase 2 field event.

APPENDIX B:

LOGBOOKS AND COMPLETED FIELD FORMS

Phase 1
RI Field Activities
(May 2019)

MADE IN TACOMA
— SINCE 1916 —
Rite in the Rain®
— DEFYING MOTHER NATURE —

ALL-WEATHER
ENVIRONMENTAL FIELD BOOK
Numbered Pages

Name EA Engineering, Science, and Technology, INC, PBC

Address 405 S. Hwy 121, by pass building C, suite 100

Phone 972-315-3922

Project Lane Plating Works, Superfund Site. 5322 Bonnie View Rd, Dallas, Tx 75241

Logbook #1

MADE IN USA · RITE GREEN · Archival Paper

RiteintheRain.com

© 2018
JL DARLING LLC
Tacoma, WA 98424-1017 USA

US Pat No. 6,863,940
1-18

CONTENTS

PAGE	REFERENCE	DATE

Reference Page Index

147 Error Codes, Hazardous Classifications, Container Types
148 Sampling Guidelines (Liquids)
149 Sampling Guidelines (Solids)
150 Approximate Volume of Water in Casing or Hole, Ground Water Monitoring Well
151 PVC Pipe Casing Tables
152 Soil Classification
153 Soil Classification
154 Maximum Concentration of Contaminants for the Toxicity Characteristic
155 Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
156 Conversions (Length, Weight, Volume, Temp, etc...)

CONTENTS

PAGE	REFERENCE	DATE
	Kenneth Shewmake (EPA6 RPM)	
	~~cell~~ 214-665-3198 office	
	972-322-4333 cell (Do not give out for emergency and EA only)	
	Jeff Lane (214) 803-9828 cell	
	property owner of Adjacent land to the north of site and has Keys to site	
	Site combos 2141	
	Cistern wells 3522 or reverse of site address	

Location Dallas, Dallas County, TX Date 5/8/2019

Project / Client Lane Plating Works / EPA 6

Site Visit with EPA and Site Access.

~~0~~ 1145 EA onsite ; Jason Strong (JAS)
Health and Safety Review
Storms in area

1215 EPA onsite Kenneth Shewmake (KS)
KS provided Keys to unlock gate and EA provide combo locks for access to main gate and gates on the north & south of the main driveway.

1245 JAS scout Oncore power line ROW

1315 depart site to pickup supplies for upcoming field effort

5/8/2019

Rite in the Rain

Location Dallas, Dallas County, TX Date 5/9/2019

Project / Client Lane Plating Works / EPA6

Recon and marking sampling locations

0930 EA onsite for field Recon Jason Stroup (JAS), John Schwertz (JFS), Ryan Guth (RG)

0945 porta-john delivered by United Rentals

0955 Health and Safety Review

1000 EA started marking soil boring Locations around main process area

1130 Mobile Mini arrive onsite

1215 start scanning and marking SW/SE locations

1730 arrive back @ command center

1745 depart site

5/9/2019

Location Dallas, Dallas Co, TX Date 5/10/2019

Project / Client Lane Plating Works, / EPA 6

0715 EA on site Jason Stroup (JAS)

0720 Lance with Sunbelt onsite

0800 Health and safety review with Sunbelt & GPRS

0827 Start clearing soil boring locations with GPR and Magnetometer

1019 finish marking the 16 total monitor well & boring locations for utility clearance by GPRS & Sunbelt

1022 GPRS clear and demobe equipment

1048 depart site; EA, Sunbelt, & GPRS

5/10/2019

Rite in the Rain

Location Dallas, Dallas Co, TX Date 5/13/2019

Project / Client Lane Plating Works / EPA6

Samplers JAS, DS, DD, BT with EA

0730 arrive EA, unload supplies
See site log for personnel
0800 Health and Safety Review
0815 setup supplies and load equipment
1000 depart site for Creek
1230 arrive @ LSW-20; setup up supplies
1245 sample collected @ LSW-20 (MS/MSD) 2-1L poly (NaOH) for Cyanide, 2-1L poly (HNO_3) for Total Metals (TM), 2-filtered poly (HNO_3) for (DM) dissolved Metals, 3-250ml poly (Ammonium Hydroxide / Ammonium Sulfate) for Hexavalent Chromium. (MS/MSD)
1300 LSED-20 Collected 1-8oz Jar Total Metals + 3-4oz Jars for Hex Cr MS/MSD
See data sheet for parameters and more information
1415 arrive @ LSW-19; weather Sunny 27°F
1435 LSW-19 collected; see datasheet for more information
1440 LSED-19 collected; see datasheet for more info

Location Dallas, Dallas Co, TX Date 5/13/2019

Project / Client Lane Plating Works, / EPA6

Sediment & Surface water Sampling

1545 arrive @ LSW-18; weather
1600 collect LSW-18; Normal sample, see data sheet for containers and parameters
1605 collect LSED-18, normal sample see data sheet
1630 arrive @ LSW-17; Jason Strong (JAS), Drew Simon (DS), David Weigert (DD), Brian Taylor (BT)
1640 collected LSW-17; 1-1L poly (NaOH) for Cyanide, 1-1L poly (HNO_3) for Total Metals, 1-1L poly (HNO_3) for dissolved Metals, 1-250ml poly (Ammonium hydroxide / Ammonium Sulfate) for Hexavalent Chromium
1645 collected LSED-17; 1-8oz Jar for TM; 1-4oz Jar for Hexavalent Chrome.
@1700 depart LSW-17 for Command Site (CS)
1830 depart site for Fed Ex
1852 drop of samples @ Fed Ex

5/13/2019

Rite in the Rain

Location Dallas, Dallas Co, TX Date 5/14/19

Project / Client Lone Plating Works / EPA6

Sampling JAS, DS, DD, BT, AS with EA

730 onsite EA, unload supplies. See site log for personell

0800 Health & Safety Review

0815 Setup supplies and load equipment

1000 Depart site for creek

**** EPA watch over drilling. See Mark Kelly's field notes for more detail.

*** Sunny/Partly cloudy. 82°F partly cloudy.

1030 Start cleaning trash to LSW-16

1200 Arrive @ LSW-16, setup supplies

[1215] Sample collected @ LSW-16 (Replicate) ~~14~~ DD ~~ply~~ DD Analysis for Cyanide (CN) Total Metals (TM), Dissolved metals (DM), Hexavalent Chromium (HC) See data sheets for more detail of standard duplicate sample

[13:35] Standard sample collected @ LSW-15 (TM, CN, DM, HC) See data sheets for more detail of standard sample taken. DD, AS, BT sampling

Location Dallas, Dallas Co, TX Date 5/14/19

Project / Client Lone Plating Works / EPA6

Sampling DD, BT, AS

~~aft~~ DD

14:15. Arrive @ LSW-11, weather sunny, 89°F

[1430] Standard sample collected @ LSW-11 (TM, CN, DM, HC) See data sheets for more detail of sampling

[1500] Samples collected @ LSW-10 (TM, CN, DM, HC). See data sheets for more detail

1545 Arrive @ LSW-2, weather sunny 88°F

[1605] Samples collected @ LSW-2 (TM, CN, DM, HC). see data sheet for more detail

[1645] Depart LSW-2 for command site (CS)

1930 depart site for FedEx

2015 drop samples off @ FedEx

DD 5/14/19.

Rite in the Rain.

Location Dallas, Dallas Co, TX Date 5/15/19 DD

Project / Client Lone Plating Works / EPA6

Sampling DD, AS, DS, BT, JS

730 onsite EA, unload supplies. See site log for personnel

800 Health & Safety review

815 Setup supplies and load equipment

10:00 Depart site for pond.

*** EPA watching over drilling. See Mark Kelly's field notes for more detail

*** Sunny, 81°F for weather

10:05 Arrive @ LSW-9, setup supplies.

10:25 Samples collected at LSW-9 (Duplicate) (Full Suite) Collected two(2) field blanks (FB) One(1) standard FB and one(1) PFAS ~~field~~ DD field blank.

* Duplicate samples (PFAS)
  (2)-sediment-(2) 250mL poly's
  PFAS (2) 4oz jars
  Moisture (2) 4oz jars

Field blank for PFAS is labeled FB-2019-0515-SW

** Duplicated are labeled -D @ end.

Location Dallas, Dallas Co, TX Date 5/15/19 DP

Project / Client Lone Plating Works / EPA6

Sampling AS, BT, DD.

1430 Arrive @ LSW-1. weather 95°F

1500 Samples collected at LSW-1 (MSDS). PFAS Equipment blank on acetate line (EB-20190515-SE).

1800 Depart LSW-1 for command site (CS)

2045 depart site for fedex

2120 drop samples off at FedEx

Note: Homeless area camp found while reconning the site by JS & DS. Pictures taken. Will contact Tom & City of Dallas tomorrow. 5/15/19.

DP

Rite in the Rain

Location Dallas, Dallas Co, TX Date 5/16/19

Project / Client Lone Plating Works / EPA6

Sampling BT, AS, DD, JS

730 onsite EA. unload supplies. See site log for personnel

0800 Health & safety review

0815 Setup supplies and load equipment

1000 Depart for LSW-3 (Creek)

*** EPA watching over drilling. See Mark Kelly's field notes for more detail

*** Sunny 80° F, Sunny

1020 Samples collected @ LSW-3 (Duplicate Sample). Standard Sample. Analysis for Cyanide (CN) total metals (TM), dissolved metals (DM), Hexavalent Chromium (HC). See data sheets for more detail

*** Contacted via Phone and in person the City of Dallas personnel and EPA TOM regarding homeless shelter area in creek. Provided pictures

1245 Clear cut to LSW-8

1330 Sample collected @ LSW-8 Standard sample (CN, TM, DM, HC). See data sheets

Location Dallas, Dallas Co, TX Date 5/16/19

Project / Client Lone Plating Works / EPA6

Sampling AS, BT, JS, DD.

for more detail

1420 Sample collected @ LSW-6 Standard sample (CN, TM, DM, HC). See data sheets for more detail.

1500 Sample collected @ LSW-7 Standard sample (CN, TM, DM, HC). See data sheets for more detail

1545 Sample collected @ LSW-5 Standard sample (CN, TM, DM, HC). See data sheets for more detail.

1640 Standard sample collected @ LSW-4. (CN, TM, DM, HC). See data sheets for more detail.

1740 Depart LSW-4 for command center site (CS)

1945 depart site for FedEx

2030 drop samples off @ FedEx. DD.

5/16/19

Rite in the Rain

Location Dallas, Dallas County, TX Date 5/17/19

Project / Client Lane Plating Works Inc. / EPA6

Sampling AB, BT, DD, BB.

0730 MOS,

1030 LSW-12 | Sample, ICPAES +MS + Mg + ICPAES +MS + Mg (FF)

BB/AB | Sample CN

| Sample Hex Cr

1035 LSED-12-0-0.5 | Sample ICPAES+MS+Mg+CN

BT | Sample Hex Cr

1125 LSW-13 | ICPAES+MS+Mg + Filtered

All SW MS/MSD | CN

| Hex Cr

1155 LSED-13-0-0.5 | ICPAES+MS+Mg+Cr

| Hex Cr

1230 LSW-14 | ICPAES+MS+Mg + Filtered

| CN

| Hex Cr

1235 LSED-14-0-0.5 | ICPAES+MS+Mg+Cr MS/MSD

| Hex Cr MS/MSD

Pace Coolers

5/17/19

Location Date

Project / Client

Rite in the Rain

Rite in the Rain.
ALL-WEATHER
ENVIRONMENTAL
№ 550F

LANE
PLATING

Soil Sampling
(Drilling)

CONTENTS

PAGE	REFERENCE	DATE

Location Dallas, Dallas Co. TX. Date 5-13-2019

Project / Client Lone Star Ling / EPA Region 6

0640 leave EA-Lewisville (0.0)
0738 @ site (29.4)
EA: Mark Kelly, Donny Spicer, Jason Stroup, Andrew Sidlon, Robert Barker, Maria Briceno, Ryan Guth, David Diegert, Aaron Bugher, Brian Taylor.
-0740 Sunbelt Const. (drillers) arrive w/ Geoprobe (7822DT)
Pedro Bonilla, Oswaldo Montes, Frank Chavez.
0800 EPA-Tom Kenneth
0810 Safety Meeting (J. Stroup)
0820 City of Dallas personnel/Reps.
@ site
Proceed to VSB-4: Hand Auger 0-2'
(Donny Spicer, Bob Barker, Dave Diegert).
0907 0-0.5
0915 0.5-2.0
* Each interval: 1-4oz jar (Hex Cr)
+ 1 8-oz jar (Metals + Hg + Cyanide) *
w/ Geoprobe push/hammer to 15' TD or refusal.
* See field boring log for description + other info.
MMA

Location Dallas, Dallas Co., TX Date 5-13-2019
Project / Client Lane Plating / EPA Region 6

JSB-4
0925 Move Rig over hole; push/hammer 2'-4'
0935 TD @ 15'
water @ ~2' bgs
1 push to 15 ft

MK

DSB-1
Hand Auger 0-2 (DSpicer, B Barker)
1031 Hammer (OPT) 2-4
See field boring log
1035 Refusal @ 11 ft
2 pushes to 11 ft

MK

JSB-1
Hand Auger refusal @ 1.5' (DS, BB)
1112 Hammer 0 AS 2 4 (new hole)
1116 Refusal (OPT) @ 11 ft.
See field boring log.
2 pushes to 11 ft.

MK

DSB-9
Hand Auger to 2' (DS, BB)
1151 Hammer 2-4
1155 Refusal @ 12'

Location Dallas, Dallas Co., TX Date 5-13-2019
Project / Client Lane Plating / EPA Region 6

DSB-9: see field boring log.
No second pushes for volume needed.
water @ ~1' bgs

MK

DSB-2
1332 Hammer 0 AK 2 4
(NOT Hand Augered)
1338 Refusal @ 4'
See field boring log.
1 Push to 15'
4 (stacked) 0-0.5 (one liner)
2 0-2 (separate liners)

MK

JSB-2
1439 Hammer 0-4
1444 Refusal @ 13'
See field boring log
1 push to 15'
4 (stacked) to 0.5' (one liner)
2 (stacked) to 2' (one liner)
Repeat 2 (stacked) to 2' (one liner) - DUP *

MK

~1500 Drillers off site.
EA - @ Command Post (CP)

Location Dallas, Dallas Co., TX Date 5-13-2019
Project / Client Lane Plating / EPA Region 6

@ CP - bag ice - Pack coolers
1655 Collect equipment Rinsate ER-1 from Hand Auger barrel.
(preserve w/ 40 drops buffer sol'n (in Lab blank water)
1815 leave site (50.6)
1851 @ EA-Louisville (80.3)

Mark Tilly
5-13-2019

Location Dallas, Dallas Co., TX Date 5-14-2019
Project / Client Lane Plating / EPA Region 6

0645 leave EA-Louisville (22359.5)
0723 @ site (22362.5)
EA: MKelly, JStraup, RGuth, A Bugher, D. Simon, D. Deigert, M. Briceno, B Taylor
Sub Sunbelt: Osvaldo Montes, Pedro Barriestos, Frank Chavez
0800 Safety Meeting
~0815 EPA - Stephen Pereira onsite
MKelly + RGuth recon area for todays DPT (DSB-4, 5, 6) in SE ~~SW~~ Horse Pasture area. (SE) access from SW area very muddy + wet. Will set up truck @ fence line between two pastures (on NW side) + let Rig go thru mud + water (track mounted).
Geoprobe Rig (DT) @ DSB-4.
0927 Hammer 0-4, Stop/TD @ 15' (11.2-11.6; silt, wet)
1 push - 15'
2 pushes - 2'
See field boring log

Mark Tilly

Location Dallas, Dallas Co, TX Date 5-14-2019
Project / Client Lane Plating / EPA Region 6

~1000 M. Paddack arrives (Duplicate)
→ Hammer 0-4 DSB-5
~1015 TD / Refusal @ 11' bgs 1 push to 11'
See field boring log - plus 4 pushes 0-2
MK

1043 Hammer 0-4 DSB-6
~1050 TD @ 15'
See field boring log
1 push to 15 ft, plus
2 pushes (0-2).
MK

Last SB today; install MW-2
this afternoon (to 40 ft bgs).
1130 Discuss collecting Geotech sample
M. Kelly, M. Paddack, R. Guth,
driller.
Sunbelt has no Shelby tubes or
larger (5' x 3") core barrel.
Planned to sample w/ DPT, then
auger-out w/ 6" HSA to set
well. They can go to yard (FW)
& get core barrel & Rods.
~1200(?) Drillers leave for lunch & to
get equipment.
MK MK

Location Dallas, Dallas Co., TX Date 5-14-2019
Project / Client Lane Plating / EPA Region 6

EA processing samples. Lunch.
1440 Drillers back @ site.
1450 Proceed to MW-2 location.
1507 6" HSAs w/ 5' x 2" core barrel
(split spoon).
1511 0-5' @ surface
See field boring log
* M. Kelly, R. Guth, M. Paddack present *
Decide to use 16'-18' for Geotech:
wrap in plastic, label, tape ends &
edges.
(some water on core barrel; 15'-20')
~1550 20'-25' core @ surface; barrel wet.
drill rods wet from ~ 4' bgs to TD.
(driller thinks water coming in ~15.5'-16')
Clay, white / stiff / plastic below ~16'.
15'-16' slightly 'crumbly' (sandy-look;
~~we~~ MK fine blocky texture; little-no silt,
no sand).
Stop @ 25'. ~~Will set 10' screen~~ MK
15'-25' w/ ~ 3' sand above screen.
Decide on 12.5' screen: 12.5'-25',
w/ 3' sand up to ~ 10'.
MK MK

Location Dallas, Dallas Co., TX Date 5-14-2019
Project / Client Lone Plating / EPA Region 6

MW-2
1615 Pull HSAs + set well
Top Bentonite (Med. Chips) 2' bgs
Top Sand Pack (20/40) 10.5' bgs
Screen 12.5'-25' (0.010" slots)
2" PVC sch 40
TD = 25' bgs
6" HSAs.
MK

Return to Command Post + process samples / pack coolers.
MK

1857 leave site (223627)
1939 @ EA Lewisville (223663)

MW 5-14-2019

Location Dallas, Dallas Co., TX Date 5-15-2019
Project / Client Lone Plating / EPA Region 6

0655 leave EA (223663)
0735 @ site (223693)
EA: M Kelly, D Spicer, R. Banker, D. Diegert, J. Stroup, M. Briceno, R. Cush, A. Simon, B. Taylor, A. Bugher
~0800 Sunbelt: Frank Chavez, Pedro Barrientez, Osvaldo Montes.
~0815 EPA - Kenneth Shewmake
0820 Safety Meeting.
Review PFOS sampling protocols.
Recon sample locations
0940 Proceed to DSB-3
0945 Hammer 0-2, then 0-4
R. Cush processing PFOS samples.
See field boring log for descriptions + other info.
0955 Refusal @ 10' - sample 8-10'
Note: Interval chosen for PFOS:
0.5-2.0 @ SBs + soil-water interface @ MWs, also collect for full suite of analytes (VOCs, SVOCs, Metals, Cyanide, HexCr, PCBs, PFCs, ORP, pH, TPH).
(Otherwise Normal analysis Metals + Hg + Cyanide)
MK

For full suite: 4 encores + 3 ~~2~~ 2 VOCs (travel) w/ 2 plugs each; 2-8oz amber; 1-4oz amber; 1-16oz ~~amber~~ clear; 1-4oz clear.
(Normal: 1-8oz amber + 1-4oz clear for Metals + Hg + Cyanide.)
For DSB-3 @ 0.5'-2.0' interval (+ other intervals):
2 pushes → 2' (PFOs first)
6 pushes → 11' (Refusal)
4 pushes → 2' → extra volume for full suite.
MK

Move to MW-3
1121 Hammer 0-4
* Will Push/Hammer ~~w/~~ (DPT) to see if we can get to soil/water interface (better for PFOS sample from acetate sleeves). Will then auger out w/ HSAs + 2" core barrel for ~~other~~ ~~extra~~ extra volume + to set well (also Geotech sample). See Field boring log for descriptions + other info.
MK MK

MW-3
1132 @20' w/ DPT borehole; getting sticky (moist-wet clay); getting hard to pull samples out. Begin pushing 2 ft. intervals.
~1145 Stop DPT @ 24'; in stiff, plastic dark gray clay. Moist - no obvious water bearing zone.
Mark Paddack (EA-RM) + Kenneth Stewmake (EPA-TOM) discussing using 22-24 DPT sample for PFOs OR switch to HSA + get PFOs from (possibly) deeper zone (? closer to water?).
1155 Switch to HSA;
Lunch
1315 w/ HSA + 5'x2" corebarrel, auger from ground surface. (see Field boring log).
~1335 as start auger 10'-15' interval, driller thinks water @ ~11' (drlg faster - softer soil). Pull 10'-15' core; completely wet w/ water ~1' above on Rods.
1337 Mikelly calls M Paddack to update + discuss samples; will collect
MK MK

Location Dallas, Dallas Co., TX Date 5-15-2019
Project / Client Lone Plating / EPA Region 6

MW-3
will collect PFOs from acetate sleeves 9'-11' interval. Will use 2" core for other analysis. (Full suite 9'-11')
MW-3: TD @ 20 Ft.
set well w/ 10' screen (10'-20')
Sand to 8' bgs.
Bent. seal to 2' bgs
(0.010" slots) (20/40 Sand) (Med. Bent chips)

Move Rig to DSB-7
1503 Push/Hammer 0-4'; see Field boring log.
R South collects PFOS 0.5-2.0
~~otherwise~~ Also, full suite from same.
AND MS/MSD from 0.5-2.0.
Refusal @ 11 Ft (9'-11' interval).
1630 Finishing processing DSB-7 samples. Drillers leave site (Tomorrow, last 2 SBs + 1 MW).
Processing samples
Packing coolers
2000 leave site (223698)
2035 @ EA (223728)
~~[illegible]~~ 5-15-2019

Location Dallas, Dallas Co., TX Date
Project / Client Lone Plating / EPA Region 6

0705 leave EA (223728) EA14
0750 @ site (223762)
EA: MKelly, RGuth, B Taylor, J Stroup, R Barker, N Simon, A Bugler, D Diegert; (Mr Briceno getting supplies + will arrive later)
~0800 Sunbelt @ site: Frank Chavez, Pedro Barrientez, Osvaldo Montes
0815 Safety Mtg
0825 EPA - Kenneth Shewmale on site
0830 EPA - Stephen Pereira on site
Bump-check PID w/ 100 ppm Isobutylene: reads 99.0 ppm.
0900 73° (87°/71°) 6 mph SSW
clear 63% Humidity P = 29.99" ↑
Proceed to DSB-8 (EPA, e location)
R Guth Processing PFOS.
R Barker, MKelly processing other.
0918 Hammer 0-2 (twice) for PFOS
Continue 0-? w/ Refusal for other
* PFOS interval also gets full suite: VOCs, SVOCs, Metals, Hg, Cyanide, PCBs, PFCs, ORP, pH, TPH *

DSB-8
0925 Refusal @ 10'
0940 2 pushes to 0-5 for volume
2 pushes to 2' for volume
2 pushes to 0-5' " "
(0940 Mr Briceno arrives w/ supplies.) MK

JSB-2
1043 Hammer 0-?
1045 PFOS collected (2'-5') (R.Guth)
1100 Refusal @ 10'/TD.
See field boring log:
2 pushes to 10 ft, then
4 pushes to 5 ft

~1145 Drillers - lunch
MW-1
1335 Hammer (DPT) 0-?
1339 Refusal @ 11 ft
Switch to HSA
1345 Auger w/ 5'x2" core barrel 0-?
See field boring log for descriptions
TD @ 12 ft / very hard, dry, flaky marl

MW-1
Collect VOCs (R. Guth) + Full Suite
from 6'-8'.
Retain 3.5'-5' for Geotech.
Set Well: 2" PVC
Riser 0-4.5' (Flush mount)
Screen 4.5'-12' bgs
T/Sand @ 3'
1' Bent Seal @ 1.5'
(then concrete vault - Flush)
1 centralizer @ top of
screen (~5 ft)
* Note: M. Kelly, R. Guth, M. Paddack @
location during drilling + well
installation.
~1500 M. Paddack leaves site
1520 Drillers leave site
1530 @ Command Post; Processing
samples + packing coolers
1920 leave site (223771)
1955 @ EA-Lewisville (223801)

M. Kelly
5-16-2019

0640 leave office
0715 @ site (M Kelly, R Guth)
0745 Sunbelt @ site
(Frank Chavez, Pedro Barrientes,
Osvaldo Muniz)
0815 Safety Meeting
Att: M Kelly, R Guth, R Barker,
J Strong, A Taylor, A Bugher.
Today: Ex - finish sed samples (3)
Sunbelt - confirm all SBs plugged,
develop MWs; surface completions,
move drums. (MK, RG).
Gauge on-site water wells.
0850 A) (west) By red brick office bldg
DTW = 5.45' to top of conc. cover (N)
TD = 32.2' " " " "
(soft)
0905 B) (east) by tan metal bldg / shop
DTW = 8.36' to top of conc. cover (N)
TD = 32 (soft) " " " "
Developing @ MW-3 see field
data sheets. 3-stage sub pump (Proactive)
3gpm. well pumps dry ~ 1 minute / 3 gals
wait recharge + repeat.

Location Dallas, Dallas Co., TX Date 5-17-2019
Project / Client Lane Plating / EPA Region 6

MW-3 development: Last ~2 hours, Have pumped down 10 times / ~30 gal. Last 2 turb = 40 NTU, 24 NTU. Water has lt gray tint.

1058 MKelly calls MPaddack to discuss development. He says to pump down a couple more times (will be sampling for metals, need water to be clear as possible).

1130 Completed 2 more pump-downs. 12 total / ~36 gallons removed (Last 4 turbidity reading ~30-40 NTU) Water driven gray when first start pumping, changes to v lt gray tint. Stop development @ MW-3. Work on surface completion) upright steel cover, bollards, pad.

1200 Finish MW-3 surface completion
Drillers - lunch
@ MW-2 (Development) (pad done) dtw = 4.80' toc (w/ ~3 ft stickup)

1337 Begin pumping @ 3 gpm. (screen 12.5-25, TD = 25' bgs) Water dark brown.

1345 Begin recording parameters; see field sheet.

Location Dallas, Dallas Co., TX Date 5-17-19
Project / Client Lane Plating / EPA Region 6

MW-2 Development

1348 Starting to pump dry) pumped good for ~10 min (~30 gal); then stops 2-3 sec, pumps 2-3 seconds, continues while collecting parameters.

1402 Drum ~ 2/3 full. Pump off / Recharge

1410 ~~Dtw~~ MK dtw = ~12' toc
Surge w/ pump.

1413 Pump On

1420 Stop pumping; drum full

1429 Pump on / 2nd drum. Record parameters

1440 Pump off / Recharge (was still flowing fairly well / sl. sporadic).

1445 Pump on, water very clear (17.3 NTU) then gets a little cloudy / milky.

1505 Pump off @ MW-2, 2nd drum full. Turbidity down to 20-30 NTU (water looks very clear).

Move to MW-1 — MK

1521 dtw = 1.65' toc (flush) screen 4.5'-10' bgs.

1523 Pump on: very muddy brown. Surge.

1527 Dry, ~12 gallons pumped. Pump off

1533 Pump On, muddy. Good flow ~1 minute, then sporadic.

MK

Location Dallas, Dallas Co., TX Date 5-17-19

Project / Client Lane Plating / Region 6 EPA

MW-1 Development

1538 Pump off

1544 Pump on / water fairly clear, then muddy. Sporadic flow

1548 Pump off

1554 Pump on muddy, clearing. Sporadic flow.

1558 Pump off

1604 Pump on 40 NTU, then cloudy

1610 Pump off

1616 Pump on clear - sl cloudy

1618 Pump off

1624 On: NK → NP: okay to stop after 1 drum.

1630 Pump OFF / last Reading. Remand 1 DRUM.

~1645 Drillers off site

1700 Label drums: 5 - Full soil
1 - ~½ Full soil
1 - Decon Water
4 - Development Water
1 - empty drum (for purge water)

1728 leave site (~~EA13 - NK~~ (EA13 - R. Smith)

1815 @ EA

Mark Kelly
5-17-2019

Location Dallas, Dallas Co., TX Date

Project / Client Lane Plating / Region 6 EPA

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— DEFYING MOTHER NATURE —

ALL-WEATHER
ENVIRONMENTAL FIELD BOOK
Numbered Pages

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Phone 972-315-3922

Project Lane Plating Works, Superfund Site.
5322 Bonnie View Rd, Dallas, Tx 75241

Logbook #1

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1-18

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Location Dallas/Dallas Co., TX Date 5-28-19

Project / Client Lane Plating Works / EPA 6

Sampling - TN, JS

07:30 - Arrive @ site. Conduct Safety briefing + discuss Scope of work

08:15 - Collect field blank for PFAS at location of MW-01
FB-2019-05-28-GW - 09:00

08:22 - Bump Calibrate test Horiba water quality meter.
pH - 4.01
Cond. 4.49 ms/cm
Set up To Collect Sample from MW-01.

09:05 - Collect equipment blank through Tubing with PFAS free water
EB 2019 05 28 GW.

09:18 - Begin micro purge on MW-01

09:45 Collect PFAS Samples up wind of MW-01. Collect other Samples from MW-01. - Sample time - 10:00

11:30 - Re-Calibrate DO Cell on Horiba

11:50 - Decontaminate down hole equipment.

11:55 Collect PFAS Rinsate Samples
ER20190528 GW

12:00 Collect ER5 samples

Location Dallas/Dallas Co., TX Date 5-28-19

Project / Client Lane Plating Works / EPA 6

TN, JS

12:45 - Set up on WW-01

13:00 - Begin micropurge on WW-01.

13:20 - Collect Sample from WW-01. Pack Sample Coolers + clean up Compound.

14:30 - offsite.

15:30 - Prepare Sample Coolers for Shipping

Todd A. Mathews

Rite in the Rain

Location Dallas / Dallas Co., TX Date 5-29-19

Project / Client Lane Plating Works / EPA-6

Sampling - JS, JW

0740 - Calibrate Horiba water quality meter. Conduct safety briefing

08:20 - Setup on MW-03. Pump intake set @ 18.2' bTOC. Initial WL - 4.88.

08:43 - Begin purge MW-03

09:17 - Collect sample from MW-03.

09:50 - Set up on MW-02.

10:10 - Begin purge on MW-02.

10:35 - Collect sample from MW-02.

11:10 - Set up on WW-02

11:28 - Begin purge on WW-02

11:47 Collect sample from WW-02

12:35 Collect sample ER-6.

12:50 - Gauge monitor wells

MW-01 - 3.00

WW-01 - 10.90

13:12 - Collect IDW - water sample

IDW-W-19-05-29

14:45 - offsite

Location Date

Project / Client

Rite in the Rain

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/15/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/15/19

GPS Coordinates:

Lat: 32.687529

Long: -96.767617

Weather Conditions: 95° Sunny

Surface Water ID: LSW-1

Collection Time: 1500

Sampling Personnel: AS BT DD

Sediment ID: LSED-1

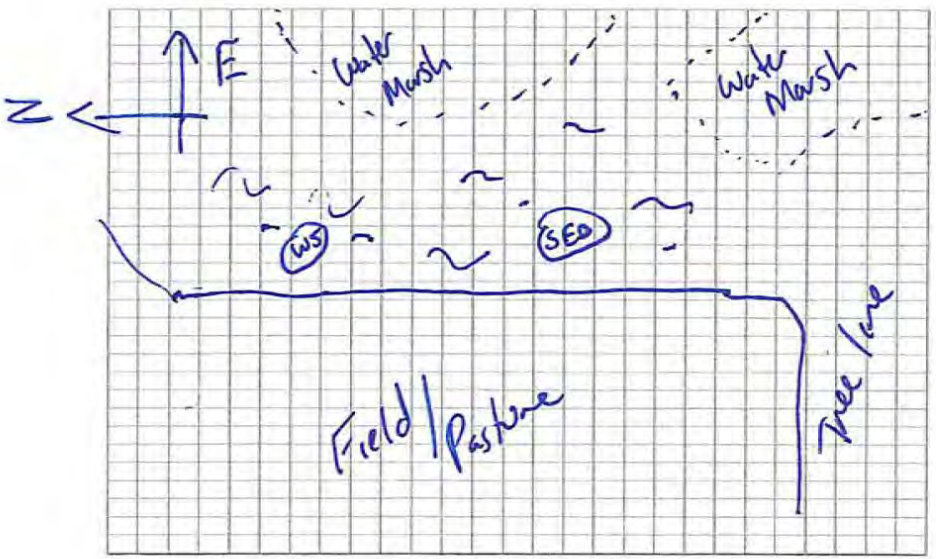
Collection Time: 1500

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 22.2 °C pH: 7.22 Conductivity: 818 ms/cm TDS: 559.0 ppm ORP: 14.0 mv Turbidity: 5.94 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: MSDS & Lab QC
PFAS Equipment blank on acetate line
EB-2019-0515-SE

Recorded By: DAVID DEICERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/14/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/14/19

GPS Coordinates:

Lat: 32.687484

Long: -96.766060

Weather Conditions: 88° Sunny

Surface Water ID: LSW-2

Collection Time: 1605

Sampling Personnel: DD BT AS

Sediment ID: LSED-2

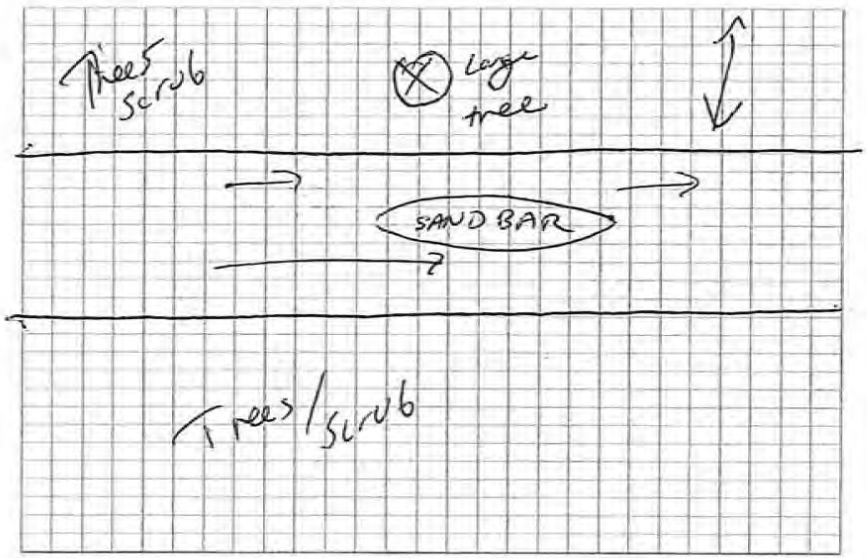
Collection Time: 1610

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 17.9 °C pH: 7.23 Conductivity: 862 ms/cm TDS: 604.50 ppm ORP: 32.0 mv Turbidity: 5.04 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DEILERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/16/19.

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING.

GPS Coordinates:

Lat: 32.688229

Long: -96.765261

Sampling Personnel: BT AS DD JS

Sample Date: 5/16/19.

Weather Conditions: 80° Sunny

Surface Water ID: LSW-3

Collection Time: 1020

Sediment ID: LSED-3.

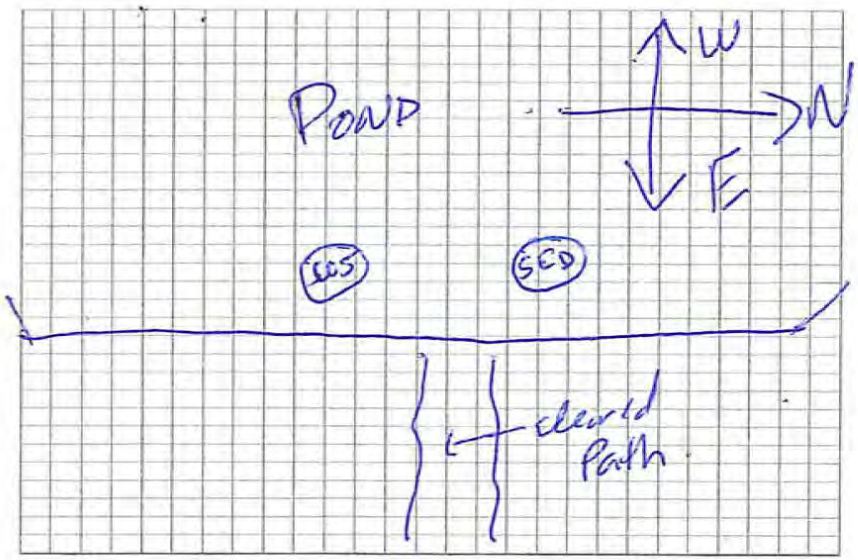
Collection Time: 1030

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20.

Surface Water Parameters:

Temperature: 22.0 °C pH: 7.59 Conductivity: 568 ms/cm TDS: 390 ppm ORP: 155 mv Turbidity: 7.21 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop DD.	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: Duplicate Samples

Recorded By: DAVID DEIGERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/16/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/16/19

GPS Coordinates:

Lat: 32.686543

Long: -96.769153

Weather Conditions: 78° Sunny

Surface Water ID: LSW-4

Collection Time: 1640

Sampling Personnel: AS DD BT JS

Sediment ID: LSED-4

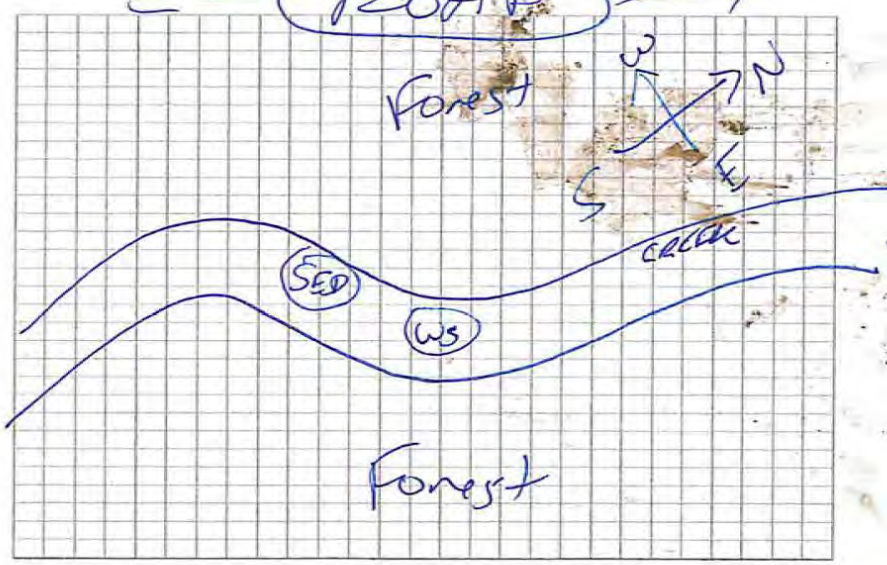
Collection Time: 1650

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 20.3 °C pH: 7.28 Conductivity: 948 ms/cm TDS: 676.00 ppm ORP: 151.1 mv Turbidity: 4.51 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: Sandy clay loam, trace gravel, dark brown, low density, no plasticity, high moisture, v. coarse to gravel, gravel subangular to angular,

Recorded By: DAVID DEHERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/16/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/16/19

GPS Coordinates:

Lat: 32.686480

Long: -96.768332

Weather Conditions: 80°F Sunny

Surface Water ID: ~~LSW-7~~ DD & LSW-5

Collection Time: 1545

Sampling Personnel: DD (AS) (BT) JS

Sediment ID: ~~LSED-7~~ DD LSED-5

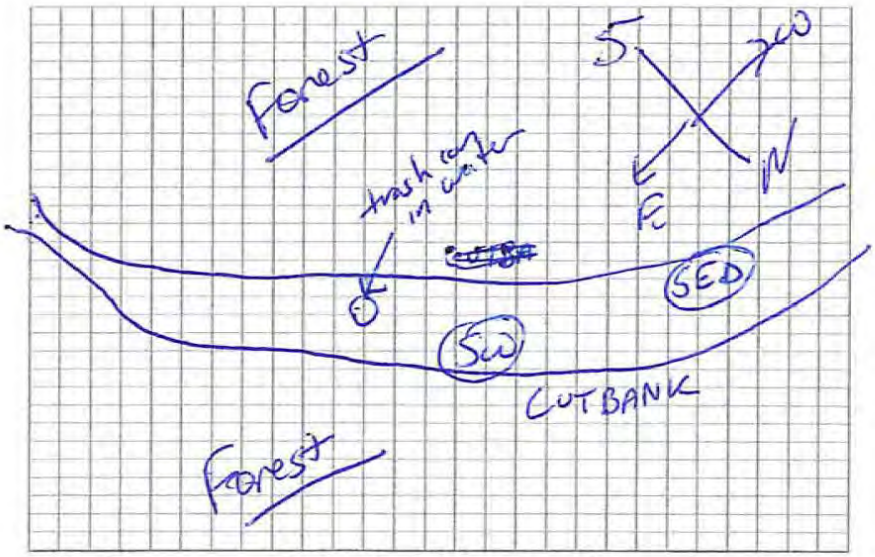
Collection Time: 1550

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 20.3 °C pH: 7.38 Conductivity: 949 ms/cm TDS: 676 ppm ORP: 127.5 mv Turbidity: 4.32 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DIEGERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Date: 5/16/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:

Lat: 32.8863559

Long: -96.767769

Sampling Personnel: AS BT DD JS

Sample Date: 5/16/19

Weather Conditions: 85° Sunny

Surface Water ID: LSW-6

Collection Time: 1420

Sediment ID: LSED-6

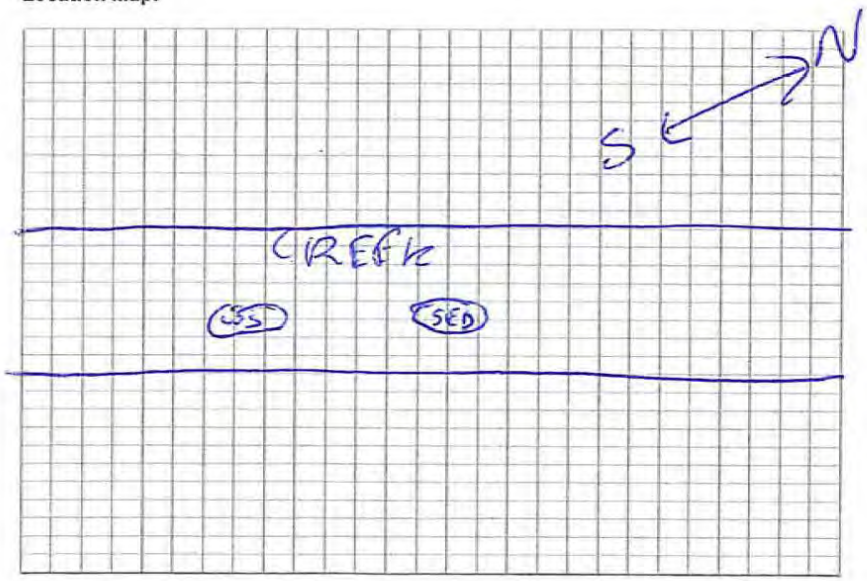
Collection Time: 1425

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 19.5 °C pH: 6.78 Conductivity: 669 ms/cm TDS: 487.5 ppm ORP: -18.9 mv Turbidity: 10.68 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

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Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/16/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/16/19

GPS Coordinates:

Lat: ~~32.666530~~ DP 32.686530

Long: -96.767723

Weather Conditions: 88°F Sunny

Surface Water ID: LSW-7

Collection Time: 1500

Sampling Personnel: DD (AS) (BT) JS

Sediment ID: LSED-7

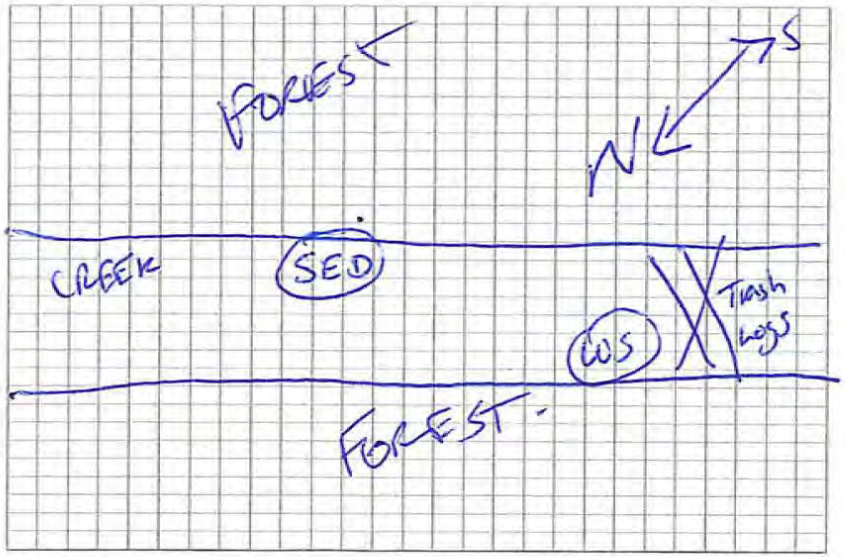
Collection Time: 1505

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20.

Surface Water Parameters:

Temperature: 20.2 °C pH: 7.39 Conductivity: 954 ms/cm TDS: 682.5 ppm ORP: 104.3 mv Turbidity: 436 ntu

Location Map:



Depth (bgs):

Sampling Method:
- Geoprobe
- Slide Hammer Probe
- Scoop
- Ponar
- Core Sampler
- Pump
- Dipper

Analyses:
- AVS/SEM
- Cyanide
- Hardness
- Hexavalent Chromium
- Metals (Dissolved)
- Metals (Total)
- ORP
- PCBs
- PFCs
- pH
- SVOCS
- TDS
- TOC
- TPH
- TSS
- VOCs

Notes/Comments:

Recorded By: DAVID DELGERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

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Date: 5/16/19.

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING.

GPS Coordinates:

Lat: 32.686267

Long: -96.766996

Sampling Personnel: AS BT JS DD

Sample Date: 5/16/19

Weather Conditions: 88°F Sunny

Surface Water ID: LSW-8

Collection Time: 13:30

Sediment ID: LSED-8

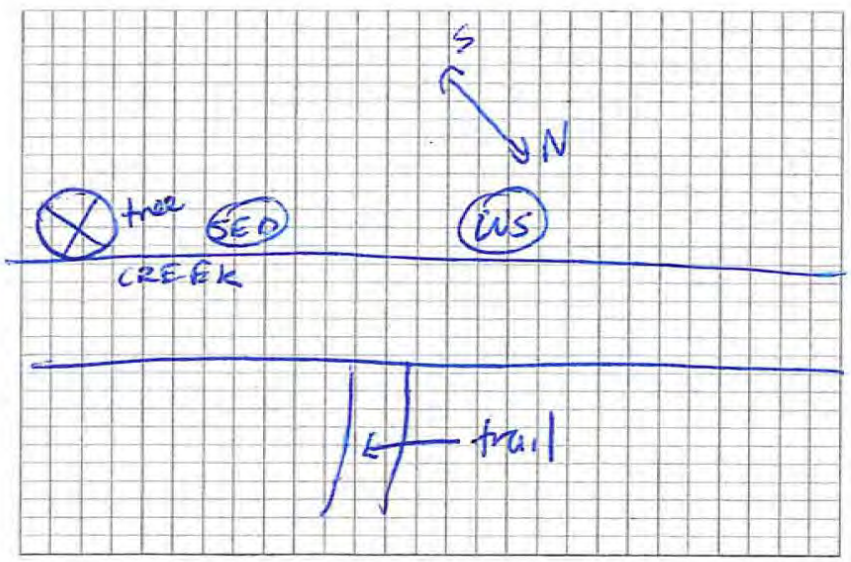
Collection Time: 13:35

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20.

Surface Water Parameters:

Temperature: 19.3 °C pH: 6.86 Conductivity: 582 ms/cm TDS: 422.5 ppm ORP: 13.0 mv Turbidity: 6.39 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DELLERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/15/19.

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:

Lat: 32.686676

Long: -96.766256

Sampling Personnel: DD (AS) DS (BT) (JS)

Sample Date: 5/15/19

Weather Conditions: 81°F Sunny

Surface Water ID: LSW-9

Collection Time: ~~10:45~~ D.D 10:25

Sediment ID: LSED-9

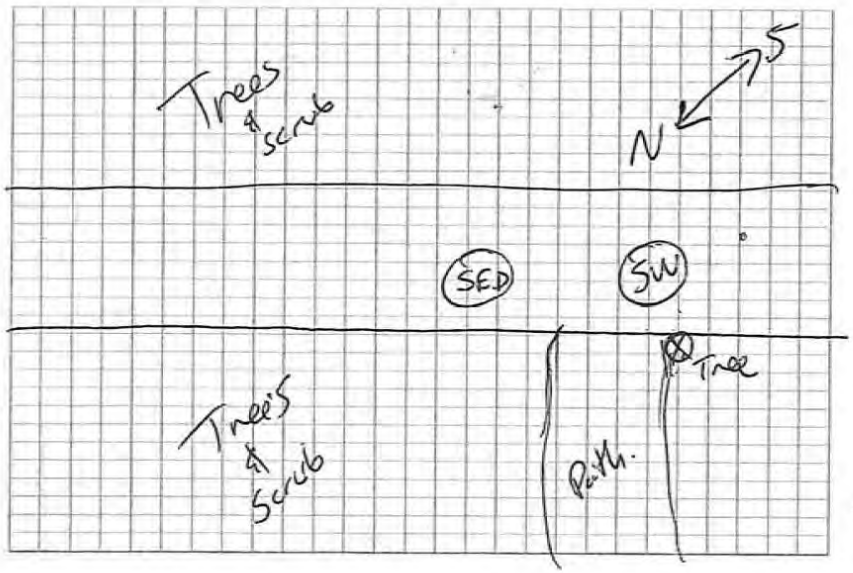
Collection Time: 10:25

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

Surface Water Parameters:

Temperature: 20.0 °C pH: 7.68 Conductivity: 829 ms/cm TDS: 598.0 ppm ORP: 50.0 mv Turbidity: 4.86 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: * Collected PFAS field blank 5min after field blank.
* Duplicate (2-250mL Polys) (2-sediment). (PFAS-402-2) (Moisture-402-2)

Recorded By: DAVID DEICERT

NOTES FOR PFAS
FB-2019-0525-SW (Field Blank)

** Duplicates are labeled -D @ end.

730

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/14/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:
Lat: 32.6885874
Long: -96.765822

Sampling Personnel: DD AS BT

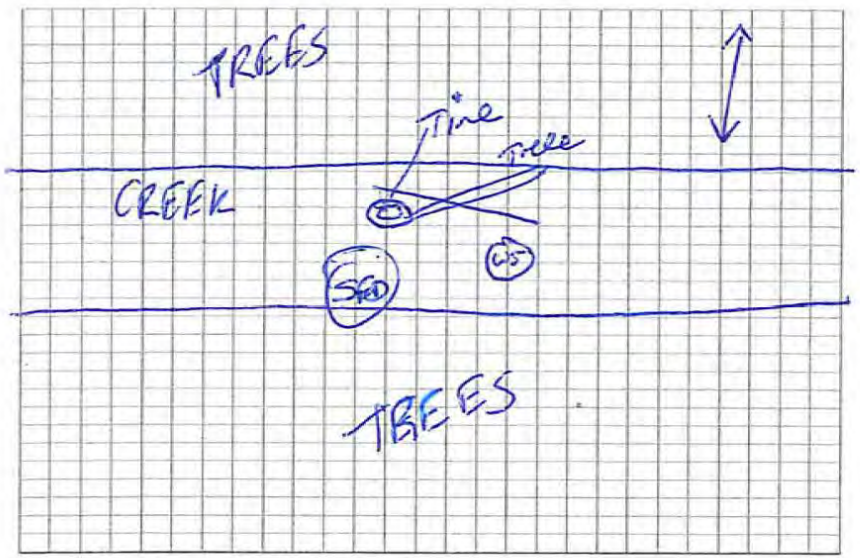
Sample Date: 5/14/19
Weather Conditions: 89°F Sunny
Surface Water ID: LSW-10
Collection Time: 1500
Sediment ID: LSED-10
Collection Time: 1515

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 21.0 °C pH: 7.60 Conductivity: 839 ms/cm TDS: 591.50 ppm ORP: 79.4 mv Turbidity: 5.47 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
Pump	Metals (Total)	TPH
Dipper	ORP	TSS
	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DEILERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/14/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:

Lat: 32.687074

Long: -96.765202

Sampling Personnel: DD AS BT

Sample Date: 5/14/19

Weather Conditions: 89°F sunny

Surface Water ID: LSW-11

Collection Time: 14:30

Sediment ID: LSED-11

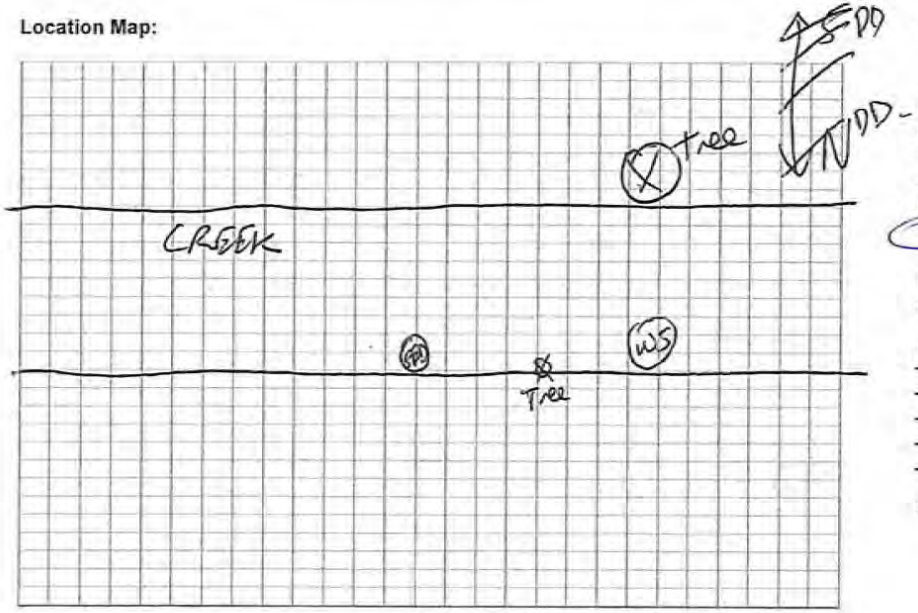
Collection Time: 14:35

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20.

Surface Water Parameters:

Temperature: 20.2 °C pH: 7.47 Conductivity: 819 ms/cm TDS: 585.0 ppm ORP: 38.5 mv Turbidity: 4.99 ntu

Location Map:



Depth (bgs):

Sampling Method:
- Geoprobe
- Slide Hammer Probe
- Scoop
- Ponar
- Core Sampler
- Pump
- Dipper

Analyses:
- AVS/SEM
- Cyanide
- Hardness
- Hexavalent Chromium
- Metals (Dissolved)
- Metals (Total)
- ORP
- PCBs
- PFCs
- pH
- SVOCS
- TDS
- TOC
- TPH
- TSS
- VOCs

Notes/Comments:

Recorded By: DAVID DEIGERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/17/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/17/19

GPS Coordinates:

Lat: 32.688509

Long: -96.767917

Weather Conditions: 71°F, 78% Humidity, 12 mph, cloudy

Surface Water ID: LSW-12, ~~LSED-12~~ OB

Collection Time: 1030

Sampling Personnel: A Bugher, B Taylor, B Oarker, J Stroup

Sediment ID: LSED-12-0.0-0.5

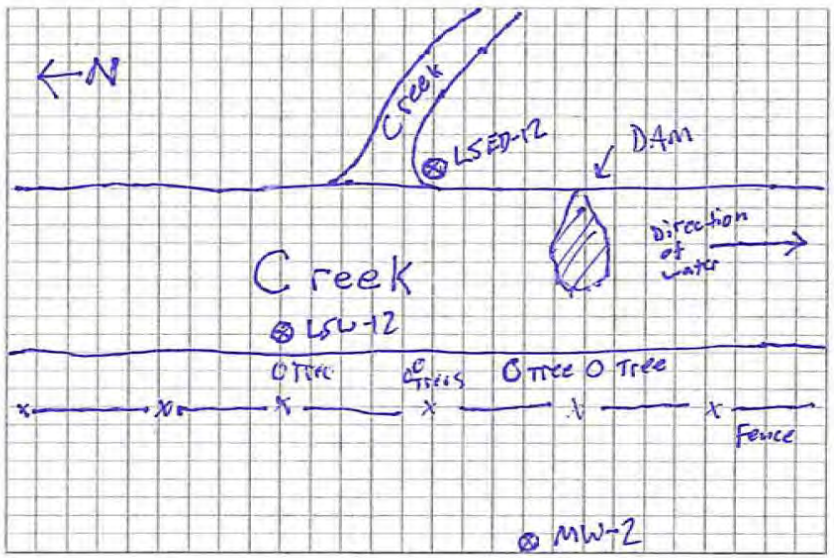
Collection Time: 1035

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
Clay Sand, some gravel, grey-brown, mild cohesion / Loose, non plastic, wet, well rounded, some silt

Surface Water Parameters:

Temperature: 19.9 °C pH: ~~7.03~~ 7.43 Conductivity: 734 ms/cm TDS: 526.5 ppm ORP: 149.1 mv Turbidity: 5.76 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: 1x8oz – Metals, 1x4oz Hex chrom, 1x250 HDPE Hex 1x1L HDPE Hg, metals, 1L HDPE Filtered Hg, Dissolved Metals ~~1x~~ 1x1L HDPE NaOH – CN

Recorded By: Aaron Bugher

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/17/19

Sediment and Surface Water Collection Field Form

Exposure Area: Lane Plating works Inc.

Sample Date: 5/17/19

GPS Coordinates:

Lat: 32.688892

Long: -96.768225

Weather Conditions: 78°F, 68% Humidity, 9 mph, Partily Cloudy

Surface Water ID: LSW-13

Collection Time: 1125

Sampling Personnel: AD, BT, JJ, DB

Sediment ID: LSED-13-0.0-0.5

Collection Time: 1155

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-14-0.0-0.5

Surface Water Parameters:

Temperature: 19.8 °C pH: 7.41 Conductivity: 728 ms/cm TDS: 526.5 ppm ORP: 130.3 mv Turbidity: 5.16 ntu

Location Map:

Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:					
	2 x 1L	HDPE	ICPAES+MS+Hg		MS/MSD
1x 8oz - metals	2 x 1L	HDPE	"	Filtered	MS/MSD
1x 4oz - Hex	2 x 1L	HDPE	CN		MS/MSD
	3 x 250mL	HDPE	Hex Cr		MS/MSD

Recorded By: Aaron Bugher

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/17/19

Sediment and Surface Water Collection Field Form

Exposure Area: Lane Plating Works INC.

GPS Coordinates:

Lat: 32.689367

Long: -96.768536

Sampling Personnel: AB BT BB JS

Sample Date: 5/17/19

Weather Conditions: 80°F, 68 Humidity, 10mph, cloudy

Surface Water ID: LSW-14

Collection Time: 1230

Sediment ID: LSED-14-0-0.5

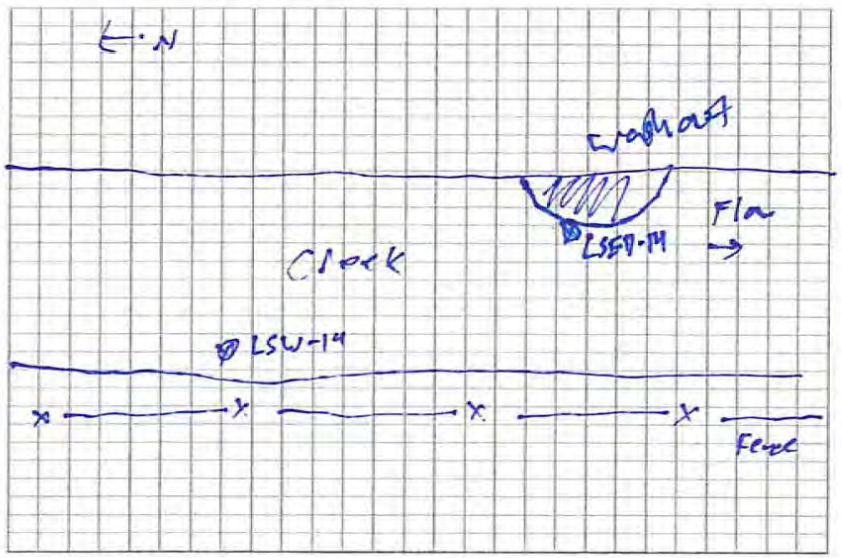
Collection Time: 1235

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Dark Grayish Brown Clayey Sand w/ (grand up by erosion, abt. Organic matter., non-plastic, wet, 5% clay → 25% silt → fine sand (no medium qu) with some coarse sand/fine gravel (10 to 40%)

Surface Water Parameters:

Temperature: 20.6 °C pH: 7.47 Conductivity: 661 ms/cm TDS: 468 ppm ORP: 107.6 mv Turbidity: 7.68 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

		1x1L HDPE		HCO3	ICPAES+MS+Hg
1x8oz Jar	ICPAES+MS+Hg+Cr	1x1L HDPE	Filtered	HNO3	"
3x4oz Jar	Hexcr	1x1L HDPE		NaOH	CN
ms/msD		1x1L HDPE			Hexcr

Recorded By: Aaron Bugher

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/14/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:

Lat: 32.687195

Long: -96.764570

Sampling Personnel: DD AS BT

Sample Date: 5/14/19

Weather Conditions: 88°F partly cloudy

Surface Water ID: LSW-15

Collection Time: 13:35

Sediment ID: LSED-15

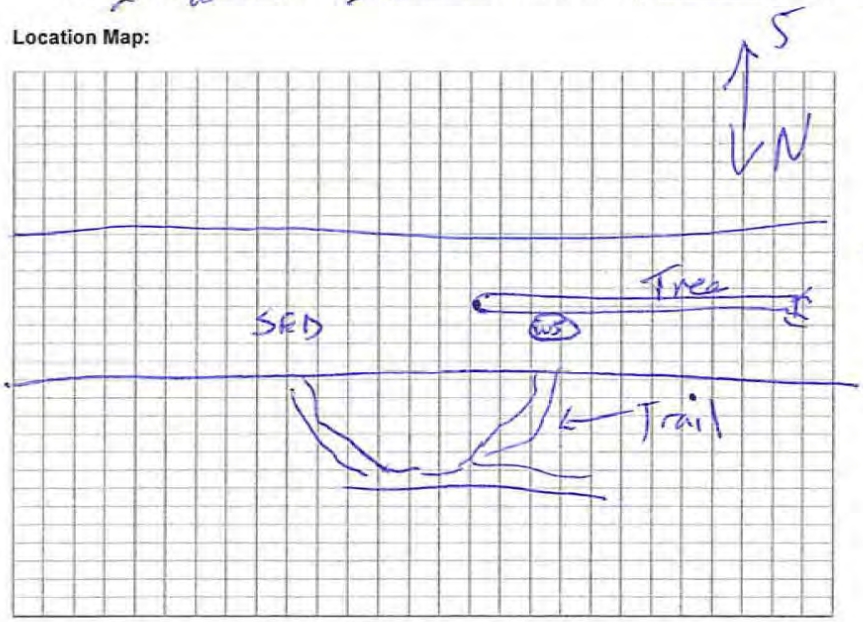
Collection Time: 13:40

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 18.8 °C pH: 7.53 Conductivity: 800 ms/cm TDS: 591.5 ppm ORP: 70.8 mv Turbidity: 4.32 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DEIGERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/14/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:

Lat: 32.687308

Long: -96.763875

Sampling Personnel: DD AS BT

Sample Date: 5/14/19

Weather Conditions: 82°F Cloudy

Surface Water ID: LSW-16

Collection Time: 12:15

Sediment ID: LSED-16

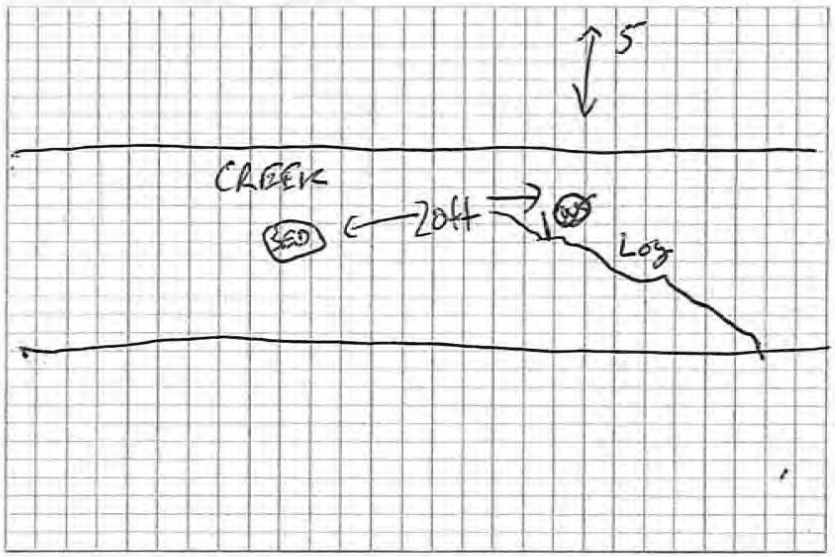
Collection Time: 12:20

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 18.2 °C pH: 7.21 Conductivity: 785 ms/cm TDS: 591.50 ppm ORP: 69.7 mv Turbidity: 513 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	~~Cyanide~~	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
~~Pump~~	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: Duplicate for soil and water

Recorded By: DAVID DEILERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/13/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/13/19

GPS Coordinates:

Lat: 32.687689

Long: -96.763263

Weather Conditions: 78° Humid

Surface Water ID: LSW-17

Collection Time: 1640

Sampling Personnel: DD (AS) (BT) JS

Sediment ID: LSED-17

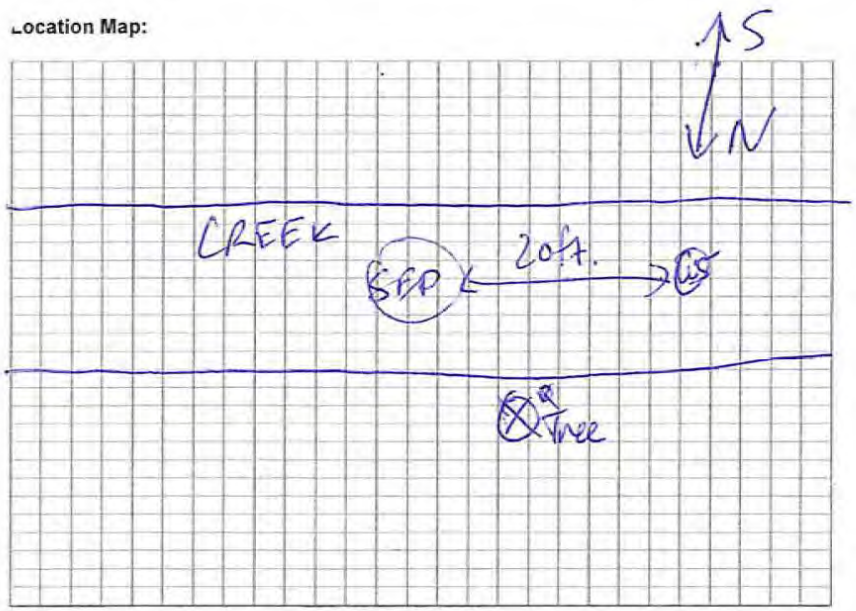
Collection Time: 1645

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 19.5 °C pH: 7.43 Conductivity: 785 ms/cm TDS: 572.0 ppm ORP: 83.2 mv Turbidity: 4.94 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DELERT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Date: 5/13/19

Sediment and Surface Water Collection Field Form

Exposure Area: Lane Plating.

GPS Coordinates:

Lat: 32.6879260°

Long: -96.762613

Sampling Personnel: DD, AS, JS, BT

Sample Date: 5/13/19

Weather Conditions: 74° Humid

Surface Water ID: ~~1600~~ DD LSW-18

Collection Time: ~~1605~~ DD 1600

Sediment ID: LSED-18

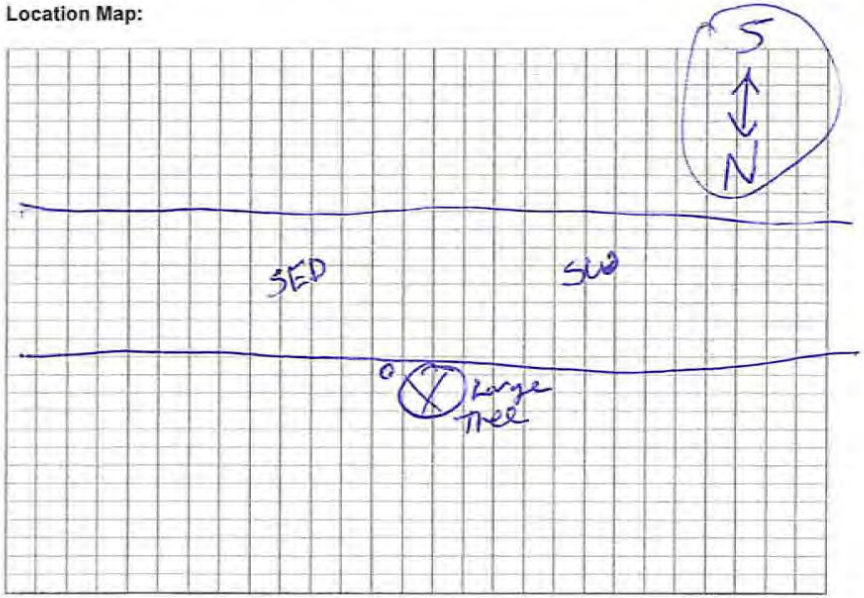
Collection Time: 1605

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 19.1 °C pH: 7.43 Conductivity: 768 ms/cm TDS: 765.5 ppm ORP: 110.4 mv Turbidity: 5.47 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: David Deilert

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/13/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

Sample Date: 5/13/19

GPS Coordinates:

Lat: 32.688076

Long: -96.761931

Weather Conditions: 77° humid

Surface Water ID: LSW-19

Collection Time: 14:35

Sampling Personnel: BT, AS, DD, JS

Sediment ID: LSED-19.

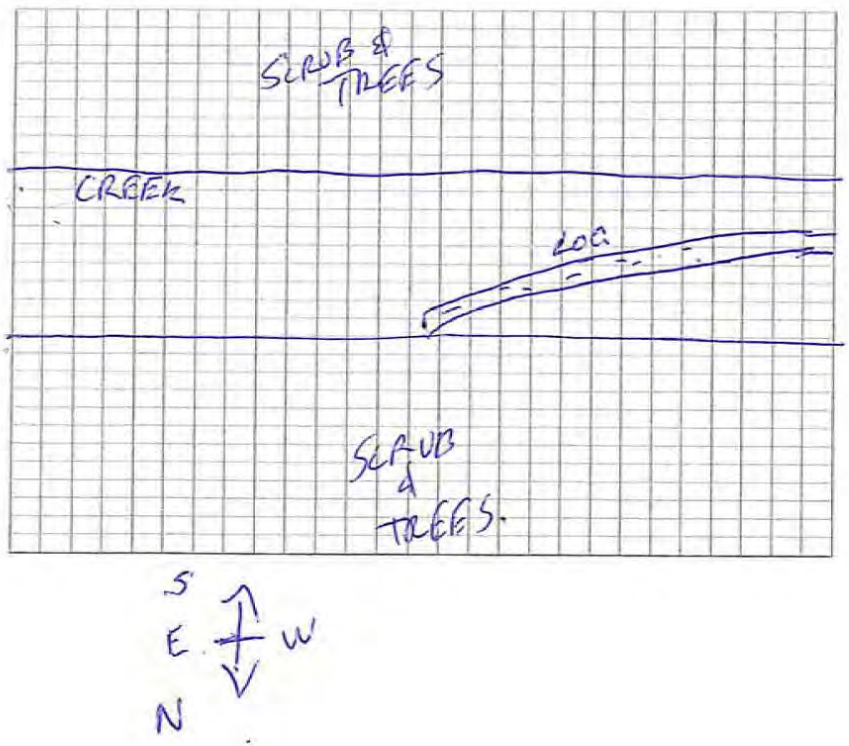
Collection Time: 14:40

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): Same as LSED-20

Surface Water Parameters:

Temperature: 18.6 °C pH: 7.4 Conductivity: 760 ms/cm TDS: 5655 ppm ORP: 139 mv Turbidity: 4.33 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: DAVID DEILFAT

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5/13/19

Sediment and Surface Water Collection Field Form

Exposure Area: LANE PLATING

GPS Coordinates:

Lat: 32.688373

Long: ~~-96.761311~~ D.D. -96.761311

Sampling Personnel: Brian, T, ASman, JS

Sample Date: 5/13/19

Weather Conditions: 73°F humid, ·

Surface Water ID: LSW-20, LSW-20 (surface water)

Collection Time: 12:45 (water) · 13:00 (soil)

Sediment ID: LSED-20

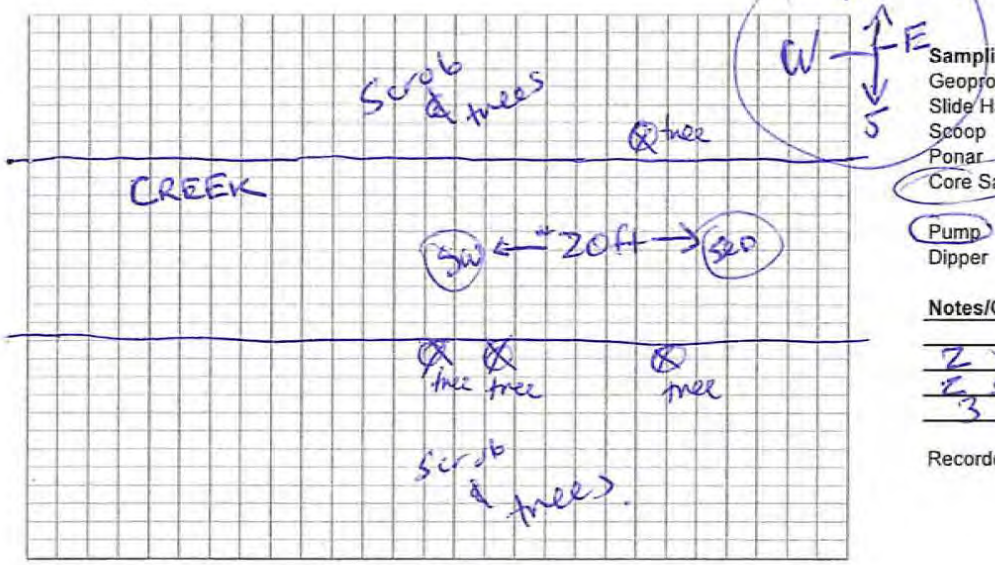
Collection Time: 13:00

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): silty clay w/ organics, dark grey to brown, wet, high plasticity, high moisture, fine to very fine.

Surface Water Parameters:

Temperature: 17.9 °C pH: 7.26 Conductivity: 746 µS/cm ms/cm TDS: 559.0 ppm ORP: 147.6 mv Turbidity: 3.56 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: 1 8oz 3 4oz sed containers.
2 1L Filtered - preserved (HNO3) 2-1L NaOH
2 1L unfiltered - preserved (HNO3)
3 250mL filtered - Ammonia hydroxide

Recorded By: DAVID DEIGERT

LAB QC - water & soil/sed

EA Engineering, Science, and Technology, Inc., PBC
405 State Highway 121
Building C, Suite 100
Lewisville, Texas 75067

RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-1	Date: 5-13-2019	Logged By: M. Kelly	
Depth of Boring: 11'	Boring Diameter: 2-5"	Drilling Co.: Sunbelt	
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	
Length of Screen:	Slot Size:	Rig: Geoprobe 7822DT	
Riser/Screen Material:	Filter Pack:	Bit: 2.9" drive shoe	
Sampling Method: Plastic liners		Drilling Method: Direct Push	

Water Level; Concrete; Grout; Bentonite; Filter Pack; Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-0.5: CLAY. 7.5YR 3/1. soft, hi plast., moist, silty.	0-0.5 (1000)				
		0.5-2.0: CLAY. 7.5YR 4/2, 4/6. soft-med. stiff, plast, silty-sandy, some wht calc nodules (medium grain) (trace coarse).	0.5-2.0 (1010)				
		*1'-1.5': silty Clay. 10YR 4/4, stiff, mod plast, dry, slty-sandy., sl calc.					
2		2.0-4.0 CLAY. 7.5YR 3/1-3/2. Med stiff, hi plast., moist, some silt/Sand, ~~Coarse Sand~~	~~2-4~~	2-4 4.3			
4		4-8: CLAY. 7.5YR 3/1-3/2 (2/1). Med. stiff, hi. plastic, moist, some silt/Sand (Coarse 7.75-8) add		4-6 1.4			
6				6-8 2.6			
8		8-11: Silty/Sandy CLAY. 10YR 4/1, ~~some 4/8~~. ~~soft~~ wet 8-9: soft, 2.5Y 7/1, some 4/8 10YR then dry, hard 9-11'.	9-11 (1035)	9-11 2.9			
10		Some water @ bottom of hole.					

EA Engineering, Science, and Technology, Inc., PBC
405 State Highway 121
Building C, Suite 100
Lewisville, Texas 75067

RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-2	Date: 5-13-2019	Logged By: Mark Kelly	
Depth of Boring: 11'	Boring Diameter: 2.5"	Drilling Co.: Sunbelt	
Length of Riser: \	Casing Diameter: \	Driller: Frank Chavez	
Length of Screen: \	Slot Size: \	Rig: Geoprobe 7822DT	
Riser/Screen Material: \	Filter Pack: \	Bit: 2.5 inch drive shoe	
Sampling Method: Plastic liners		Drilling Method: Direct Push	

▼ Water Level; Concrete; Grout; Bentonite; Filter Pack; Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY, 2.5Y 3/1.	0-0.5 (1332)					
		Med. stiff, plastic, wet-moist, sm snd/slt/wht Calc nodules,	0.5-2.0 (1333)	5.2				
2								
			2-5 (1336)	4.1				
		@3.75' 2.5Y 6/2 w/ sm 4/8 strks						
4		CLAY 5Y 7/1 + 2.5Y 6/8 strks						
		soft-med. stiff, plastic, moist		4.4				
		+ Rare (sl sandy?) Calc nodules						
6								
				4.1				
8								
		CLAY, color same - 2.5Y 7/2.						
		Med stiff-hard, plast, mst-dry, sl slty LP		4.0				
10			9-11					
11		last 0.25': dry, flaky/shaly	(1338)	4.1				

EA Engineering, Science, and Technology, Inc., PBC
405 State Highway 121
Building C, Suite 100
Lewisville, Texas 75067

RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-3	Date: 5-15-2019	Logged By: Mark Gilly	Water Level
Depth of Boring: 10'	Boring Diameter: ≈ 2.5"	Drilling Co.: Sunbelt	Concrete
Length of Riser: \	Casing Diameter: \	Driller: Frank Chavez	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7822DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: 2.5 inch drive shoe	Filter Pack
Sampling Method: Plastic liners		Drilling Method: DPT	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY. 7.5YR 3/1 soft, plastic, moist	0-0.5 (0945)					
			0.5-2.0 (0946)					
2								
4		CLAY. (7.5YR 3/1)(10YR 3/2) soft, plastic, moist						
6								
8		CLAY. 10YR 7/3 Hard, dry, flaky/shaly @ base.	8-10 (0955)					
10		Refusal @ 10 ft						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-4	Date: 5-14-2019	Logged By: Mark Kelly	Water Level
Depth of Boring: 15'	Boring Diameter:	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7822DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: drive shoe	Filter Pack
Sampling Method: plastic Liner		Drilling Method: DPT	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY. 7.5YR 3/1 (-10YR 3/2.)	0-0.5 (0927)				
		soft-med-stiff, plastic, moist, slightly silty.	0.5-2.0 (0928)	0.3			
2							
				0.7			
4		CLAY. 7.5YR 3/1.					
		soft-medium stiff, plastic, moist, sl. silty, tr white calc. nodules.		0.8			
6							
				0.4			
8		CLAY. 10YR 5/1-4/1, sm 5/8 streaks, sm wht calc. nodules, medium stiff-stiff, plastic, moist-dry, v-sl silty (-non silty).		1.0			
10							
		~~Hole~~ MW 11.2-11.6 dark brown (as above) very soft, wet *		0.3			
12		CLAY. 10YR 5/1, w/ some 5/8.					
		stiff (stiff-hard), plastic, dry-v slmst, sm wht calc.		1.1			
14			13-15 (0935)	1.3			
15							

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-5	Date: 5-14-2019	Logged By: Mark Kelly	Water Level
Depth of Boring: 11 Ft	Boring Diameter:	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7822DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: drive shoe	Filter Pack
Sampling Method: plastic Liners		Drilling Method: DPT	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY, 10YR 3/2.	0-0.5 (1002)				
		Soft-medium stiff, plastic, moist-wet, v sl. silty.	0.5-2.0 1002	3.5			
2							
			2-5 (1005)	2.8			
4		CLAY, 10YR 3/1.					
		Soft-medium, plastic, moist-wet, sl. silty.		2.7			
6							
				4.9			
8		CLAY, 10YR 4/1, some 6/8, some 8/1 streaks					
		Medium stiff-stiff/hard, plastic, sl moist-dry.		3.5			
10		[@ ~9.25; becoming very dry & flaky/shaly, 10YR 4/3-7/3]	9-11 (1010)	2.0			
11		Refusal @ 11 Ft.					

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-6	Date: 5-14-2019	Logged By: Mark Kelly	▼ Water Level
Depth of Boring: 15'	Boring Diameter: 2.5"	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7822DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: 2.5" drive shoe	Filter Pack
Sampling Method: Plastic liners		Drilling Method: Direct Push	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY. 10YR 4/2-3/2.	0-0.5 (1043)				
		soft-medium stiff, hi plast., moist, sl. silty.	0.5-2.0 (1044)	0			
2							
				0.2			
4		CLAY. 10YR 3/1-3/2.					
		soft-med. stiff, hi plast, moist. some wht calc		0.3			
6							
				0			
8		CLAY. 10YR 4/1-3/1 (A) 10YR 5/1, 5/8 (B)					
		med. stiff, plast., moist-dry, sl silty, sm wht calc nodules. -stiff.		0.2			
10		[@~10' changing from dark gray (med stiff to gray (stiff)]					
		~~CLAY 2.5Y 6/1, 6/8~~ AL					
		~~stiff~~ AL		0.2			
12		CLAY. 2.5Y 6/1, 6/8					
		stiff, plastic, dry-moist, silty, calc. nodules.		0.3			
14		(Becoming very dry + flaky (shaly.)	13-15 (1050)	0.2			
15							

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-7	Date: 5-15-2019	Logged By: Monk Kelly	Water Level
Depth of Boring: 11	Boring Diameter: 2.5"	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	Grout
Length of Screen:	Slot Size:	Rig: 7822 DT Geoprobe	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: drive shoe	Filter Pack
Sampling Method: Mastic liners		Drilling Method: DPT	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY. 10YR 3/2. Mod stiff, plastic, slightly silty, moist.	0-0.5 (1509)					
			0.5-2.0 (1510)					
2								
			2.0-5.0 (1515)					
4		CLAY. 10YR 3/1-3/2. Soft-mod. stiff, plastic, mois, sm white calc. nodules						
6								
8								
		CLAY: 10YR 4/1, some 6/8, 8/1. dark gray w/ sm yellow+white	9.0-11.0					
10		very stiff, plastic, moist-dry.	(1520)					
11		Refusal @ 11'						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-8	Date: 5-16-2019	Logged By: Mark Kelly	▼ Water Level
Depth of Boring: 10'	Boring Diameter:	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7522DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: drive shoe	Filter Pack
Sampling Method: plastic liners		Drilling Method: DPT	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY, 2.5Y 2.5/1	0-0.5 (0915)				
		Soft-med stiff, hi plast, moist, sl. silty, tr wht calc	0.5-2.0 (0920)				
2			2.0-5.0				
			0923				
4		CLAY, 2.5Y 6/2, 6/8 sm Black					
		Soft-med stiff, plastic, sm wht calc, sl silty					
6		2.5Y 7/1-6/1 + sm 10YR 6/8					
8		CLAY 2.5Y 7/1-6/1, sm 10YR 6/8	8-10 (0925)				
		Soft-med stiff, hi plast, moist, sl silty, tr wht					
10		@ ~9.75: Hard, dry, flaky/shaly 2.5Y 7/3					

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: DSB-9	Date: 5-13-2019	Logged By: Mark Kelly	
Depth of Boring: 12'	Boring Diameter: 2.5"	Drilling Co.: Sunbelt	
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	
Length of Screen:	Slot Size:	Rig: Geoprobe 7822 DT	
Riser/Screen Material:	Filter Pack:	Bit: 2.5" drive shoe	
Sampling Method: Manic hicers		Drilling Method: Direct Push	

Water Level; Concrete; Grout; Bentonite; Filter Pack; Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2 Hand Auger						
		CLAY. 2.5Y 3/1-2.5/1.	0.5-0.5 (1115)					
		Soft-med stiff, plast, moist	0.5-2.0 (1130)	2.3				
2		CLAY. 2.5Y 6/1-6/2 w/ sm 5/6						
		Soft-med stiff, plast, moist.	2-5 (1151)	2.4				
4		CLAY. 2.5Y 7/1-, 6/2 w/ 6/8						
		Stiff, lo-med plast. Sand w/ wht Calc.		2.8				
6								
				3.7				
8		(Sand) Yellow						
		Coarse Sand, wet-moist, stiff, plast.		3.5				
10								
		last 0.25' dry flaky/shaly CLAY 2.5Y 7/2	10-12 (1155)	5.4				
12								
		water @ ~1' bgs						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-1	Date: 5-13-2019	Logged By: Mark Kelly	Water Level
Depth of Boring: 11	Boring Diameter: 2.5"	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7822 DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: 2.5" drive shoe	Filter Pack
Sampling Method: Plastic Liner		Drilling Method: Direct Push	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		Hand Auger 0-2 / Refusal @ 1.5' | DPT 0-11 / Refusal						
		0-0.5 v dark gry/black	0-0.5 (1035)					
		0.5-1.5 Brwn-Blck w/ sm wht Calc | 0-4 CLAY. 10YR 4/2 Med. stiff, plast., moist, sm wht calc.	0.5-2.0					
2		@ ~1.5'; Gravel + Fn asphalt frags/grains; then SAA	(1112)					
		10YR 4/3	2-5					
		Soft - med stiff, plast., moist	(1114)	3.7				
4		4-8 (Poor Recovery; ~0.5', WET)						
		CLAY. 10YR 4/2. soft-med stiff, plastic, wet						
6								
8		8-11 Sandy Clay/Clay. color SAA / Before						
		8-9: Gravel, some paper(?) fragments, wet.						
10		@ ~9' Gry + wht. Med stiff-soft, plast, moist.	9-11	5.6				
11			(1116)					

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-2	Date: 5-16-2019	Logged By: Mark Kelly	
Depth of Boring: 10 ft	Boring Diameter:	Drilling Co.: Sunbelt	
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	
Length of Screen:	Slot Size:	Rig: Geoprobe 7822	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method: plastic (acetate) liners		Drilling Method:	

▼ Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY, 7.5YR 3/2. Soft - medium stiff, plastic, moist, silty.	0-0.5 (1044)					
			0.5-2.0 (1043)	4.2				
2		CLAY, 10YR 3/1-3/2, 5/2-5/8 Soft - med. stiff, plastic, moist, slightly silty, trace wht calc. nodules.	2-5 (1045)	0.3				
4								
		CLAY. 10YR 4/1-5/1, 5/8 (some), white. Med. stiff - stiff, plastic, moist, sl. silty		0				
6								
				0				
8		CLAY: SAA	8-10 (1100)	0				
		med. stiff - stiff/hard, plastic (med.), moist - dry sl. silty. @9.75': hard, dry, flaky/shaly 10YR 7/8-6/8.						
10								

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-3	Date: 5-13-2019	Logged By: Mark Hill	▼ Water Level
Depth of Boring: 13	Boring Diameter: 2.5"	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller: Frank Chavez	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe 7822DT	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: 2.5" Drive Shoe	Filter Pack
Sampling Method: Plastic liners		Drilling Method: Direct Push	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY. 10YR 3/1.	0-0.5 (1439)				
		Med. stiff - soft, hi plast.	0.5-2.0 (1440) *DUP*	3.7			
2		Some Fine wht Calc nodules					
			2-5 (1442)	4.4			
4		CLAY 10YR 3/1-2.5/1 . 10YR 3/1-4/1, 10YR 4/4.					
		Med. stiff, moist		3.2			
6		some fine white Calcareous nodules					
				3.8			
8		Changing to dark gray, then yell/brown moist-dry, v stiff-hard. Becoming mottled					
				2.9			
10		@10' Aing to dk gry w/ yell/wht dry-v st moist					
				3.5			
12		@11.75' - Aing to dry Fldry/shdy 10YR 7/2-7/1	11-13 (1444)	4.5			
13							

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-4	Date: 5-13-2019	Logged By: Mark Kelly	Water Level
Depth of Boring: 15'	Boring Diameter:	Drilling Co.: Sunbelt	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig: Geoprobe	Bentonite
Riser/Screen Material:	Filter Pack:	Bit: Drive Shoe	Filter Pack
Sampling Method: plastic liners		Drilling Method: DPT	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm) (ppb)	WELL COMPLETION annulus	casing	annulus
0		Hand Auger 0-2					
		CLAY. 7.5YR 3/2	~~0-0.5 (0905)~~	NA			
		soft, med-hi plasticity, moist, slightly silty.	~~(0915)~~ 0.5-2.0 ~~(0930)~~	~~NA~~ NK			
2		CLAY. 7.5YR 4/2 very slightly silty	2'-5' (0930)	0			
		soft-medium stiff, high plasticity, moist, slightly silty.		~~2.7~~ NK			
4		CLAY. 7.5YR 4/3					
		soft-medium stiff, hi plast., moist, little-no silt.					
6				2.7			
8		CLAY. 10YR 6/4					
		soft-stiff, high plast., moist,		2.7			
10		(stiff 8'-10')(softer 10'-12' + very moist-sl. wet)		3.0			
12		CLAY. slightly mottled 10YR 7/3 + some 5/6.					
		soft-medium stiff, high plast., moist.	13'-15' (0935)	1.8			
14							
15							
		water up to 1.5'/2' bgs in openhole.					

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: MW-1	Date: 5-16-2019	Logged By: Mark Kelly	
Depth of Boring: 12 ft	Boring Diameter: 6"	Drilling Co.: Sunbelt	
Length of Riser: 4.5	Casing Diameter: 2"	Driller: Frank Chavez	
Length of Screen: 7.5	Slot Size: 0.010"	Rig: Geoprobe 7822 DT	
Riser/Screen Material: PVC	Filter Pack: 20/40	Bit:	
Sampling Method: 5' Core Barrel		Drilling Method: HSA	

Water Level; Concrete; Grout; Bentonite; Filter Pack; Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-5 (Recov 3') CLAY/silty CLAY, 10YR 3/2. Med. stiff, plastic, moist, slightly silty (topsoil).	0-0.5 (1345)	0.3				
		@ 0.5-1.5: Sandy Clay/Clayey Sand. 10YR 5/6. Fill.	0.5-2.0 (1347)	NR				
5		Lost 0.5 ft very stiff / tight CLAY. 10YR 3/2-3/3. Little-no silt/Sand.	Reach 3.5-7 (1350)					
		5'-10' (Rec. 3') [Changing from softer dark brown to stiffer Gray]	6-8 (1355)	0				
		CLAY. 10YR 4/2, some wht Calc nodules, sl. soft-med stiff - stiff, plastic, moist-dry		NR				
10		CLAY. 10YR 6/4						
12		~~very~~ stiff/hard, mod plastic, moist-dry, ~~blocky @ base~~ NC some Red fine gravel, sl. silty		0				
15		@ Base (~11.5) ~~very~~ Hard, dry, blocky Marl/Shale.						
		TD @ 12 ft						
		Riser 0 - 4.5 bgs 2" PVC						
		Screen 4.5 - 12 bgs (0.010" slots)						
		1 centralizer @ 5 bgs						
		Top Sand Pack 3' (20/40)						
		Top Bent Chips 1.5' (Medium)						
		Flush mount						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
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Project Number: 14342168 - B - 3

Boring/Well ID: MW-2	Date: 5-14-2019	Logged By: Mark Kelly	Water Level
Depth of Boring: 25'	Boring Diameter: 6	Drilling Co.: Sunbelt	Concrete
Length of Riser: 12.5	Casing Diameter: 2"	Driller: Frank Chavez	Grout
Length of Screen: 12.5	Slot Size: 0.010"	Rig:	Bentonite
Riser/Screen Material: PVC	Filter Pack: ~~#10~~ AK 20/40	Bit: HSA	Filter Pack
Sampling Method: 5' coreboard / SPSP		Drilling Method: HSA	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
1507 0		CLAY. 7.5YR 3/2-3/1. soft-med. stiff, plastic, moist 1512 1513	0-0.5 0.5-2.0	0.5				
				0.5				
1511 5		(Recover 2') CLAY. 10YR 3/1-3/2. med stiff, plastic, moist, crumbly.		1.0				
				NR				
1518 10		CLAY. 10YR 4/1-4/4 2.5Y 5/2 mottled, stiff, plastic, some crumbly, moist. ~~stuff~~ AK		1.7				
			(1530)	1.4				
1528 15		CLAY. 10YR 4/2, w/ fine black streaks crumbly stiff, plastic, moist-dry, v slightly silty. ~15.5'/4' 1539	14-16 GeoTech 16-18'	0.9				
				0.3				
1539 20		CLAY. 10YR 4/2-4/3 SAA		5.8				
				4.6				
~1550? 25		Stop @ 25'						

2" PVC
Riser +3 to -12.5
Screen -12.5 to -25
Sand (20/40) -10.5 to -25
Bent (Med. Chips) -2 to -10.5
Centralizers @ -11.5 & -24.

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
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Boring/Well ID: MW-3	Date: 5-15-2019	Logged By: Mark Kelly	▼ Water Level
Depth of Boring:	Boring Diameter: 6"	Drilling Co.: Sunbelt	Concrete
Length of Riser: 10'	Casing Diameter: 2"	Driller: Frank Chavez	Grout
Length of Screen: 10'	Slot Size: 0.010"	Rig: Geoprobe 5822DT	Bentonite
Riser/Screen Material: PVC	Filter Pack: 20/40	Bit: drive shoe / HSA	Filter Pack
Sampling Method: plastic liners / 5' core barrel		Drilling Method: DPT / HSA	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY, 10YR 3/2.	0-0.5 (1315)	1.4				
			0.5-2.0 (1317)	1.3				
5		CLAY. 10YR 3/1		1.0				
			7-9 (1330)	0.7				
10 ▽ 11'		CLAY. 10YR 4/1, 5/8 stiff, plastic, moist-dry. (10-11; crumbly-soften, moist-wet).	9-11 (1335)	0.4				
15		CLAY, 10YR 4/1-3/1 (SAA) very stiff, plastic, dry-vsl. moist		0.8				
				0.7				
20				0.4				
		TD @ 20'						
25		Riser 0-10 2" PVC (stickup)						
		Screen 10-20 (0.010" slots)						
		sand 8-20 (#20/40)						
		Bent 2-8 (Med. chips)						
		Centralizers: 19', 9' bgs						
		(TD 24' w/ DPT) (Stop @ 20' w/ HSA)						

1/1

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Lane Plating	Project No.: 143421.08	Date: 5-17-2019
EA Personnel: Mark Kelly	Development Method: Pumping	
Weather/Temperature/Barometric Pressure:		Time: 1515

Well No.: MW-1	Well Condition: new
Well Diameter: 2"	Measurement Reference: toc (Flush)
Screen Interval: 4.5'-12' bgs (flush mount)	Sand Pack Interval: 3'-12' bgs
Well Volume Calculations: 2"=0.163 gal/ft 4"=0.653 gal/ft 6"=1.1469 gal/ft	
A. Depth To Water (ft): 1.65' toc	D. Well Volume/ft: 0.163
B. Total Well Depth (ft): ~12' toc (12' bgs)	E. Total Well Volume (gal)[c*d]: 1.69
C. Water Column Height (ft): 10.35	F. Five Well Volumes (gal): 8.45

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1523	1544	1604	1616	1624	1630
Depth to Water (ft)	1.65					
Pump Depth (ft)	12'					
Purge Rate (gpm)	3 gpm					
Volume Purged (gal)	PUMP					1 DRUM
Temperature (°C) (°F)	ON	20.1°C	20.1	19.8	19.5	19.8
Conductivity (µS/cm) (mS/cm)		966.0	971.5	967.2	972.5	969.6
TDS (ppm)		667.3	672.3	671.4	669.2	670.1
pH		7.00	6.87	6.77	6.75	6.72
ORP (mV)		102	107	118	123	125
Turbidity (NTU) (AU)		86.6 AU	40 NTU	41.4	33.8	26 NTU

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)						
Depth to Water (ft)						
Pump Depth (ft)						
Purge Rate (gpm)						
Volume Purged (gal)						
Temperature (°C) (°F)						
Conductivity (µS/cm) (mS/cm)						
TDS (ppm)						
pH						
ORP (mV)						
Turbidity (NTU) (AU)						

COMMENTS AND OBSERVATIONS:

1503 Pumping very muddy. Surge of pump.
1527 dry. ~12 gallons removed
1533 Pump On; muddy. strong flow ~1 minute, then sporadic.
1538 Pump off (Recharge)
1544 Pump On
1548 " OFF
1554 " ON
1558 " OFF
1604 " On
1610 Pump OFF
1616 " On
1615 " OFF
1624 " On
1630 " OFF / 1 DRUM (~1 hour)

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft = 0.29 cu yd

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Lane Plating	Project No.: 14342168	Date: 5-17-19
EA Personnel: M. Kelly	Development Method: Pumping	
Weather/Temperature/Barometric Pressure:		Time: 1330

Well No.: MW-2	Well Condition: new
Well Diameter: 2"	Measurement Reference: toc
Screen Interval: 12.5'-25' bgs (~3' stickup)	Sand Pack Interval: 10.5-25 bgs
Well Volume Calculations: 2"=0.163 gal/ft 4"=0.653 gal/ft 6"=1.1469 gal/ft	
A. Depth To Water (ft): 4.80' toc	D. Well Volume/ft: 0.163
B. Total Well Depth (ft): ~28' toc (25' bgs)	E. Total Well Volume (gal)[c*d]: 3.78
C. Water Column Height (ft): ~23.2'	F. Five Well Volumes (gal): 18.9

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1337	1345	1350	1355	1400	1401
Depth to Water (ft)	4.80	—				
Pump Depth (ft)	25'	—				
Purge Rate (gpm)	3gpm	—				
Volume Purged (gal)			~30 gal			~2/3 drum
Temperature (°C) (°F)	Pump	22.2°	20.8	20.8	20.6	21.1
Conductivity (µS/cm) (mS/cm)	On	828.4	822.6	818.0	815.3	816.2
TDS (ppm)		567.6	562.4	560.5	557.4	558.6
pH		6.99	6.97	6.99	6.84	6.76
ORP (mV)		80	89	93	98	103
Turbidity (NTU) (AU)		Overrange	3631 AU	2998 AU	1457 AU	674 AU

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)	1415	1430	1435	1440	1446	1451
Depth to Water (ft)						
Pump Depth (ft)						
Purge Rate (gpm)						
Volume Purged (gal)	1 drum full					
Temperature (°C) (°F)	21.0	21.4	20.6	20.7	20.5	20.4
Conductivity (µS/cm) (mS/cm)	816.4	817.7	818.7	814.9	812.1	814.2
TDS (ppm)	559.5	560.1	561.3	557.8	555.9	560.9
pH	6.68	6.70	6.75	6.76	6.72	6.72
ORP (mV)	110	108	109	110	111	110
Turbidity (NTU) (AU)	2462	Overrange	1758 AU	617 AU	173 NTU	194 NTU

COMMENTS AND OBSERVATIONS:

1348 starting to pump dry
1402 Pump off & Recharge
1410 dry ~12" toc
1413 Pump On
1420 – Pump off (Drum Full)
1429 – Pump On (2nd Drum)
1440 – Pump off
1445 Pump On

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gsl/ft
= 1.6 gal/inch
= 7.82 cu ft = 0.29 cu yd

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Lane Plating	Project No.: 14347168	Date: 5-17-19
EA Personnel: MKelly	Development Method: Pumping	
Weather/Temperature/Barometric Pressure:		Time: 1330

Well No.: MW-2	Well Condition: new
Well Diameter: 2"	Measurement Reference: toc
Screen Interval: 12.5'-25' bgs (~3' stickup)	Sand Pack Interval: 10.5-25 bgs
Well Volume Calculations: 2"=0.163 gal/ft 4"=0.653 gal/ft 6"=1.1469 gal/ft	
A. Depth To Water (ft): 4.80' toc	D. Well Volume/ft:
B. Total Well Depth (ft): ~28' toc (25' bgs)	E. Total Well Volume (gal)[c*d]:
C. Water Column Height (ft):	F. Five Well Volumes (gal):

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1455	1458	1500	1505		
Depth to Water (ft)						
Pump Depth (ft)						
Purge Rate (gpm)						
Volume Purged (gal)				~100 gal / 2 drums		
Temperature (°C) (°F)	20.4	20.4	20.5	20.5		
Conductivity (µS/cm) (mS/cm)	818.0	817.9	817.9	817.3		
TDS (ppm)	560.3	558.4	558.1	558.9		
pH	6.73	6.72	6.71	6.80		
ORP (mV)	111	112	113	112		
Turbidity (NTU) (AU)	45 NTU	23 NTU	30.6 NTU	25.0 NTU		
	48					

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)						
Depth to Water (ft)						
Pump Depth (ft)						
Purge Rate (gpm)						
Volume Purged (gal)						
Temperature (°C) (°F)						
Conductivity (µS/cm) (mS/cm)						
TDS (ppm)						
pH						
ORP (mV)						
Turbidity (NTU) (AU)						

COMMENTS AND OBSERVATIONS:
Good flow at first 10 minutes / 30 gal; then sporadic / alternating few air bubbles + good flow ~2 seconds at each. Continued as long as pump on & never pumped completely dry; removed 2 drums ~1.5 hours w/ ~25 minutes total down at pump off.

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft = 0.29 cu yd

1/1

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Lake Mating	Project No.: 14342.1608	Date: 5-17-14
EA Personnel: Mark Kelly	Development Method: Pumping	
Weather/Temperature/Barometric Pressure:		Time: 0900

Well No.: MW-3	Well Condition:
Well Diameter: 2"	Measurement Reference:
Screen Interval: 10'-20' bgs (~3' stickup)	Sand Pack Interval: 8'-20' bgs
Well Volume Calculations: 2"=0.163 gal/ft 4"=0.653 gal/ft 6"=1.1469 gal/ft	
A. Depth To Water (ft): 4.8' TOC	D. Well Volume/ft: 0.163
B. Total Well Depth (ft): ~23' TOC (20' bgs)	E. Total Well Volume (gal)[c*d]: 2.97
C. Water Column Height (ft): ~18.2'	F. Five Well Volumes (gal): 14.85

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	~0900 (?)	0940	~~0946~~ NK	0946	1000	1025
Depth to Water (ft)	4.8	after 4	5th	6th	7th	8th
Pump Depth (ft)	20	pumpdowns	pump down	pump down	pump down	
Purge Rate (gpm)	3gpm				3gpm	3
Volume Purged (gal)	Pump	~12 gallons	NO (15)	fog (18)	21 gal	24
Temperature (°C) (°F)	On	20.4	Readings	muddy	20.8	20.4
Conductivity (µS/cm) (mS/cm)		102.6		NO	1007	1009
TDS (ppm)		710.9		Readings	697.0	697.0
pH		6.91			6.87	6.93
ORP (mV)		71			77	79
Turbidity (NTU) (AU)		1599 AU			911 AU	835 AU

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)	1040	1050	1115	1130		
Depth to Water (ft)	NK ~~9th pump down~~	10th pump down	11th pump down	12th / Last		
Pump Depth (ft)						
Purge Rate (gpm)	3	3	3	3		
Volume Purged (gal)	NK ~~27~~ 27	30	33	36		
Temperature (°C) (°F)	20.1	20.4	20.7	20.1		
Conductivity (µS/cm) (mS/cm)	1011	1001	1002	1010		
TDS (ppm)	692.1	693.4	694.7	693.4		
pH	6.93	6.91	6.91	6.76		
ORP (mV)	82	83	85	97		
Turbidity (NTU) (AU)	40/25/41 NTU	24 NTU	42.8 NTU	29.6 NTU		

COMMENTS AND OBSERVATIONS:

Pumped down + recharged 4 times, between start (~0900) + 0940; very muddy.

Pumped down / Recharged 12 times ~2.5 hours. Remove ~36 gallons water.

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft = 0.29 cu yd

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5-28-19

Ground Water Collection Field Form

Well ID: MW-01 Sample ID: MW-01 Sample Time: 10:00

Casing diameter/type: 2" PVC
Screened interval(s): 4.5 - 12.0
Total depth: 12.0
Initial depth to water (w/o pump): 2.91
Final depth to water (w/o pump): 2.93
Measuring point: **North side of casing**

Well location: Lane Plating
Sampling personnel: TN, JS
Sampling method: low flow
Water level indicator: Heron
Water quality meter: ~~YSI~~ Horiba
Pump depth setting: 8.25

Weather: overcast, warm, humid
Pump type/model: Alexis / Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%) *	DO (mg/L) *	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate ~~(L/min)~~ or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
09:20	24.50	0.922	0.0	0.00	6.46	167	3.15	280	370	0.5	
09:23	23.62	0.922	0.0	0.00	6.51	162	3.18	290	266	1.0	
09:26	22.78	0.925	0.0	0.00	6.54	155	3.27	300	208	2.0	
09:29	22.38	0.927	0.0	0.00	6.62	150	3.28	300	147	3.0	
09:32	22.13	0.929	0.0	0.00	6.66	146	3.28	300	117	4.0	
09:35	21.89	0.932	0.0	0.00	6.65	147	3.29	300	86.6	5.0	
09:38	21.89	0.932	0.0	0.00	6.65	147	3.29	300	86.6	6.0	

* - DO cell may not be working - working upon calibration

Note:
Parameter Stabilization Limits:
(3 consecutive readings) for percent difference type parameters
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In example, stabilization has not occurred.

Analyses: (circle those collected and indicate the number of containers)

Cyanide	1	PCBs	8	TPH	8
Hexavalent Chromium	1	PFCs	8	VOCs	12
Metals (Dissolved)	1	SVOCS	8		
Metals (Total)	1	TDS	4		

Recorded By: Todd Nickerson

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 05-29-19

Ground Water Collection Field Form

Well ID: MW-02 Sample ID: MW-02 Sample Time: 10:35

Casing diameter/type: 2" / PVC
Screened interval(s): 15.5 - 28.0
Total depth: 28.0
Initial depth to water (w/o pump): 5.23
Final depth to water (w/o pump): 5.45
Measuring point: **North side of casing**

Well location: Lane Plating
Sampling personnel: TN, JS
Sampling method: low flow
Water level indicator: Heron
Water quality meter: ~~YSI~~ Horiba
Pump depth setting: 21.75

Weather: Overcast, warm, humid, light rain
Pump type/model: Peristaltic / Alexis

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
10:13	22.02	0.853	27.2	2.33	6.65	473	5.50	320	2.6	1	
10:16	21.52	0.852	22.9	1.96	6.60	523	5.60	320	2.5	2	
10:19	21.11	0.851	18.3	1.60	6.70	511	5.68	320	0.5	3.5	
10:22	21.09	0.849	17.4	1.50	6.76	486	5.68	320	0.9	4	
10:25	21.08	0.848	16.2	1.40	6.80	470	5.68	320	1.9	5	
10:28	21.16	0.846	14.5	1.24	6.81	437	5.69	320	3.0	6	
10:31	21.08	0.845	14.1	1.23	6.83	393	5.70	320	3.1	7.5	End Purge

Note:
Parameter Stabilization Limits:
(3 consecutive readings) for percent difference type parameters
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In example, stabilization has not occurred.

Analyses: (circle those collected and indicate the number of containers)

Cyanide	1	PCBs	TPH
Hexavalent Chromium	1	PFCs	VOCs
Metals (Dissolved)	1	SVOCS	
Metals (Total)	1	TDS	1

Recorded By: Todd Nickerson

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 05-29-09

Ground Water Collection Field Form

Well ID: MW-03 Sample ID: MW-03 Sample Time: 09:17

Casing diameter/type: 2" / PVC
Screened interval(s): 13-23
Total depth: 23
Initial depth to water (w/o pump): 4.88
Final depth to water (w/o pump): 5.85
Measuring point: **North side of casing**

Well location: Lane Plating
Sampling personnel: TN, JS
Sampling method: low flow
Water level indicator: Heron
Water quality meter: ~~YSI~~ Horiba
Pump depth setting: 18.2

Weather: overcast, warm, humid
Pump type/model: Peristaltic / Alexis

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
0858	21.37	1.15	49.1	4.41	6.83	388	6.78	320	3.9	5	
0901	19.95	1.16	31.5	2.73	6.77	411	6.84	320	4.0	6	
0903	19.86	1.15	25.5	2.23	6.73	425	6.95	300	2.4	7	
0906	20.12	1.15	21.4	1.89	6.77	420	6.99	300	1.6	8	
0909	20.09	1.15	18.0	1.58	6.78	419	7.04	280	1.5	10	
0912	20.09	1.14	16.3	1.43	6.80	418	7.05	280	1.5	11	
0915	20.08	1.14	15.1	1.33	6.82	416	7.06	280	1.0	12	

Note:
Parameter Stabilization Limits:
(3 consecutive readings) for percent difference type parameters
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In example, stabilization has not occurred.

Analyses: (circle those collected and indicate the number of containers)

Cyanide	1	PCBs	TPH
Hexavalent Chromium	1	PFCs	VOCs
Metals (Dissolved)	1	SVOCS	
Metals (Total)	1	TDS	1

Recorded By: Todd Nickerson

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 5-28-19

Ground Water Collection Field Form

Well ID: WW-01 Sample ID: WW-01 Sample Time: 13:20

Casing diameter/type: 36" Concrete
Well location: Lane Plating
Weather: Overcast, humid, wa

Screened interval(s):
Sampling personnel: TN, JS

Total depth: 32
Sampling method: ~~A~~ Low flow

Initial depth to water (w/o pump): 10.79
Water level indicator: Heron

Final depth to water (w/o pump): 10.79
Water quality meter: ~~YSI~~ Horiba

Measuring point: **North side of casing**
Pump depth setting: 28
Pump type/model: Peristaltic / Alexis

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%) *	DO (mg/L) *	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1300	21.12	1.14	19.2	1.75	6.58	164	10.79	400	0.0	0.5	
1303	20.50	1.15	5.9	0.53	6.53	166	10.79	400	0.0	1.5	
1307	20.38	1.15	3.9	0.34	6.49	168	10.79	400	0.0	2.5	
1310	20.36	1.15	1.7	0.14	6.48	169	10.79	400	0.0	3.8	
1314	20.28	1.15	0.0	0.00	6.39	172	10.79	400	0.0	5.0	
1318	20.26	1.15	0.0	0.00	6.37	176	10.79	400	0.0	8.0	End Purge

Note: *DO ~~Sensor~~ Cell still not working

Parameter Stabilization Limits:
(3 consecutive readings) for percent difference type parameters
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In example, stabilization has not occurred.

Analyses: (circle those collected and indicate the number of containers)

Cyanide	3	PCBs	TPH
Hexavalent Chromium	4	PFCs	VOCs
Metals (Dissolved)	3	SVOCS	
Metals (Total)	3	TDS	1

Recorded By: Todd Nickerson

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 05-29-19

Ground Water Collection Field Form

Well ID: WW-02 Sample ID: WW-02 Sample Time: 11:47

Casing diameter/type: 36" / Concrete
Well location: Lane Plating
Weather: warm, humid, Overcast
Screened interval(s):
Sampling personnel: TN, JS
Total depth: 32
Sampling method: low flow
Initial depth to water (w/o pump): ~~28~~ 10.02
Water level indicator: Heron
Final depth to water (w/o pump): 10.02
Water quality meter: ~~YSI~~ Horiba
Measuring point: **North side of casing**
Pump depth setting: 28.0
Pump type/model: Peristaltic / Alexis

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
11:30	22.40	1.08	51.4	4.28	6.95	329	10.03	400	0.9	1.0	
11:33	21.43	1.09	48.0	4.13	6.64	380	10.03	400	1.7	2.5	
11:36	21.41	1.09	46.8	4.01	6.59	384	10.03	400	0.8	4.0	
11:39	21.41	1.09	45.0	3.76	6.66	379	10.03	400	0.0	6.0	
11:42	21.33	1.09	43.9	3.77	6.70	375	10.03	400	0.0	7.5	
11:45	21.36	1.09	42.9	3.68	6.75	371	10.02	400	0.0	9.0	

Note:
Parameter Stabilization Limits:
(3 consecutive readings) for percent difference type parameters
Percent difference formula =
ABS[((first reading - second reading)/first reading) x 100]
Ex: Readings 12, 16, 15, 13
((12-16)/12)*100 = 33% ((16-15)/16)*100 = 6%
((15-13)/15)*100 = 13% In example, stabilization has not occurred.

Analyses: (circle those collected and indicate the number of containers)

Cyanide 1	PCBs	TPH
Hexavalent Chromium 1	PFCs	VOCs
Metals (Dissolved) 1	SVOCS	
Metals (Total) 1	TDS 1	

Recorded By: Todd Nickerson

Phase 2
RI Field Activities
(January 2020)

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ENVIRONMENTAL FIELD BOOK

Numbered Pages

Name EA Engineering, Science, and Technology, INC, PBC

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Project Lane Plating Works, Superfund Site. 5322 Bonnie View Rd, Dallas, Tx 75241

Logbook #1

MADE USA RITE GREEN Archival Paper

RiteintheRain.com

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JL DARLING LLC
Tacoma, WA 98424-1017 USA

US Pat No. 6,863,940
1-18

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Location Dallas, Dallas Co, TX Date 1/7/2020

Project / Client Lane Plating Works, / EPA 6

Glenn. MW & Soil boring Locations

0730 onsite TN & JAS, Bob Barker (BB) with EA, Mark Kelley (MK) with EA.

0800 Ramon with Sunbelt onsite

0830 GPRS subcontractor of Sunbelt onsite.

0845 Health and Safety Review

0930 MK oversees Sunbelt & GPRS in clearing utility locations for MW & soil boring locations

0945 JAS, TN, BB, cut and Mark old trails to SW/SE locations and recon new locations.

1200 GPRS & Sunbelt finish locations and are offsite.
JAS offsite.

1230 MK, BB & TN mark locations and cut new trails to LSW-21 & 22 SW/SE locations.

JS 1/7/2020

Location Lane Plating Date 1/13/2020

Project / Client

Sampling JS, BT, AS, MM, JF

0715 - Head to site
0750 - arrive @ site
0815 - Health & Safety meeting
1100 - Arrive @ LSED/LSW - 22
1110 - LSW sample time (LSW-22)
1215 - LSED sample time (LSED-22)
1250 - back @ connex
1330 - Head to next sample location
1415 - Arrive @ LSED/LSW-21
1420 - sample time for LSW-21
1500 - LSED-21 sample time
1530 - Return to connex
1715 - leave site

MM.
1-13-2020

Rite in the Rain

Location Lane Plating Date 1-~~13~~ 14-20

Project / Client

Sampling JS, BT, DS, MM

0800 - Arrive on site
0825 - Health & Safety Meeting
0950 - Arrive @ LSW-9
LSW-9 sample time 1005
LSW-1 sample time 1025
1100 - Arrive @ BLSW-1
BLSW-1 sample time 1125
BLSED-1 sample time 1155
1215 - back @ connex, lunch
BLSW-5 sample time 1530
1600 - Marking trails for BLSW-6, and 7
1630 - Return to ~~eco~~ connex
1715 - Leave site

MM 1-14-20

Location Lane Plating Date 1-15-20

Project / Client

Sampling BT, DS, MM

0815 - arrive on site
0825 - Health & Safety meeting
0900 - Arrive @ BLSW-6
BLSED-~~5~~6 sample time 0935
BLSED-7 Sample time 1000
1030 - find path to BLSW-8
1115 - back @ connex
1200 - Checking LSW-4, 5, 6, & 7
All too dry to sample
~~100~~ 1300 - return to BLSW-8 for sampling
BLSW-8 sample time 1400
BLSED-8 sample time 1415
1430 - return to connex & head to baseball field
SS-9 sample time 1450
SS-8 sample time 1505
1530 - return to connex to label samples & start packing coolers
1845 - leave site

MM 1-15-20

Rite in the Rain

Location Lane Plating Date 1-16-20

Project / Client

MM.

0815 - Arrive on site
0845 - Health + Safety Meeting
0900 - leave to buy bubble bags w/ Bob
1000 - return to site, checking culvert for flow → NO flow for sampling background locations
1015 - perimeter check
1030 - start on SCRIBE, logging samples JSB-5
MW-8
MW-10
JSB-6
1400 - lunch
1500 - return to print COCs, pack coolers + clean connex
1622 - leave site

1-16-20
MM.

Location Lane Plating Date 1-20-20

Project / Client

DS, MM, JS, BB

0800 - Arrive onsite
0830 - Health + safety Meeting
0900 - prepare for day sampling
1045 - FB20200120-SW (field blank for PFAS, Jason stroup)
1115 → sample time for LSW-4 + LSW-4-D PFAS
1200 - lunch
Sample time for BLSW-5 is 1320
1345 - head to BLSW-2 and BLSW-4 locations
1425 → BLSED-2 sample time
1430 → BLSW-2 sample time MS/MSD on BLSW 2 for Metals
1515 → BLSW-4 sample time
1525 → BLSED-4 sample time
1600 - return to connex for packing
1800 - leave site

1-20-20
MM

Rite in the Rain

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Location Lane Plating Date 1/13/2020

Project / Client EPA Region 6

0745 EA on site
0815 H&S meeting
Calibrate YSI
Conductivity: 564 → 1020 @ °11.7
pH: 7, 7.32 → 7.02 @ °11.7
pH: 10, 10.20 → 10.00 @ °11.7
pH: 4, 3.86 → 3.98 @ °11.6
ORP: 229 mV → 244 mV → 229 mV @ °11.4
1000 Turbidity meter calibration check.
Unit 2020 WC 762-1011
10.38 → 9.99

1530 Begin Rinsate of soil auger
1st 8.8 +10
2nd 8.8 +10 } 30 drops
3rd 9.0 +10
1341 4th 9.5

Rite in the Rain

Location Lane Plating Date 1/14/2020

Project / Client EPA Region 6

0730 EA onsite
0815 H&S meeting
0845 YSI Calibration
Conductivity
1132 → 1174 @ 14.7°
PH4 → 6.97 → 7.00 @ 14.7
PH10 → 10.18 → 10.00 @ 15.1
PH4 → 3.74 → 3.98 @ 15.2
ORP → 220 → 229.1 @ 15.2

1230 Enroute to SS-3 to collect soil surface samples 0-0.5 inch and 6 inch to 2ft
See data sheet for more info.
1243 Sample time for 0-0.5
1248 Sample time for 0.5 in - 2ft
1305 To next location
1307 Arrived at SS-4
0-0.5 to 2.0 ft
See data sheet for more info.
1308 Sample for 0-0.5
1312 Sample for 0.5-2.0
1325 Demob to command post

1-14-2020

Location Dallas, Dallas Co TX Date 1-14-2020

Project / Client Lane Plating Work, Inc

1405 En route to SS-2
1408 Arrived at SS-2 for collection of surface soil samples 0-0.5 and 0.5-2.
1415 Sample time for 0-0.5
1416 Sample time for 0.5-2
1422 En route to command post
1450 En route to SS-5 for collection of surface soil samples 0-0.5 and 0.5-2.0
1455 Arrived at SS-5
1502 Sample time for 0-0.5
1504 Sample time for 0.5-2.0
1518 Finished at SS-5
1523 Arrived at SS-1 for collection of surface soil samples 0-0.5 and 0.5-2.0
1526 Sample time for 0-0.5
1527 Sample time for 0.5-2.0
1540 Demob back to command post.
1730 off site
1830 Arrived at office

1-14-2020

Rite in the Rain

Location Dallas, Dallas Co. Tx Date 1-14-2020

Project / Client Lane Plating Works, Inc

1330 Rinsate collection time.
30 drops of acid for
hexchrome sample.

1-14-2020

Joe Flores

Location Dallas, Dallas Co Tx Date 1-15-2020

Project / Client Lane Plating Works Inc.

0700 En route to site
0745 Arrived at site.
0750 Drillers on site.
0812 Cloudy/Fog; 68°F; Breeze; Humid
0881 YSI Calibration
Cond 1132 → 1225 @ 18.4
PH 7 7.03 → 7.00 @ 19.1
PH 10 10.13 → 10.00 @ 19.3°
PH 4 3.75 → 3.99 @ 19.5°
ORP 221.4 → 229.1 @ 19.1°
YSI not operating correctly
0900 Bob Burlin off site to get a
replacement YSI unit.
1515 Rinsate collected
- 1st Ph test was 6.5 added 10 drops
- 2nd Ph test was 7.5 9.5
- 3rd ph test was at 9.5 added
9 drops

1/15/2020

Rite in the Rain

Location Lane Plating Date 1/16/2020

Project / Client EPA Region 6

0730 onsite

0830 H+S meeting

1200 Rensate off driller Shoe

initial Ph 7.0 + 10 drops

→ 8.0 + 10 drops → 9.0 + 5 drops

→ 9.5 (25 total drops)

Location Lane Plating Date 1/20/2020

Project / Client EPA Region 6

onsite 0730

0830 H+S meeting

0913 YSI Calibration

PH7 7.27 → 7.00 @ 5.5°

PH10 10.23 → 10.00 @ 5.8°

PH4 3.50 → 4.00 @ 6.1°

ORP 256.2 → 228.9 @ 6.3°

Con 957 → 1399 @ 6.2°

1015 GPRS Inc utility locating on site.

1035 Safety meeting conducted to GPRS.

1045 On parcel of property with background locations to be scanned with ground penetrating radar

1057 BSB-2. Manhole to sewerline located 30ft NW of location

A 10ft x 10ft box around location is going to be cleared.

First clear is done with a RD 8100 Radiodetection unit to detect electrical or radio waves.

Next the GPR unit is used in a

[signature] 1-20-2020

Rite in the Rain

Location Lone Plating Date 1-20-2020

Project / Client Dallas, Dallas Co

Cross pattern to clear the location

1105 BSB-3 Location cleared.

1114 BSB-4 Location cleared.

1125 BSB-5 Location cleared.

1138 BSB-8 Location cleared.

1145 BSB-7 Location cleared.

1148 BSB-4 Location cleared

1155 BSB-1 location cleared.

1200 GPRS off site.

1/20/2020

Location Lone Plating Dallas, TX Date 1/21/2020

Project / Client EPA Region 6

0730 Onsite

0800 H+S meeting

0845 Teams Head out

1000 Aaron onsite

1030 Leave to get samples

1120 Rinsate

Ph 6.5 + 10 → 8.0 + 10 → 9.5

(20 drops)

1530 Rinsate

Ph 6.5 + 10 → 8.0 + 10 → 9.5

Rite in the Rain

071264

LANE PLATING

No.550F - Environmental - Yellow - 4.75" x 7.5"
6 32281 55021 1
ISBN 978-1-932149-50-0

Rite in the Rain
ALL-WEATHER
ENVIRONMENTAL
№ 550F

LANE
PLATING

Soil Sampling
(Drilling)

Location Dallas, Dallas Co., TX Date 5-17-19
Project / Client Lane Plating / Region 6 EPA

MW-1 Development
1538 Pump off
1544 Pump on / water fairly clear, then muddy. Sporadic flow
1548 Pump off
1554 Pump on muddy, clearing. Sporadic flow.
1558 Pump off
1604 Pump on 40 NTU, then cloudy
1610 Pump off
1616 Pump on clear - sl cloudy
1618 Pump off
1624 On: NK → MP: okay to stop after 1 drum.
1630 Pump OFF / last Reading. Remove 1 DRUM.
~1645 Drillers off site
1700 Label drums: 5 - Full soil
1 - ~½ Full soil
1 - Decon Water
4 - Development Water
1 - empty drum (For purge water)
1728 leave site (~~EA13 - MK~~ (EA13 - R. Guth)
1815 @ EA

Mark Kelly
5-17-2019

Location Dallas, Dallas Co., TX Date 1-13-2020
Project / Client Lane Plating / Region 6 EPA

0710 leave EA (905815) (EA31)
0750 @ site (908817)
Safety Mtg: MKelly, Drew Simon, Jacob Meinerts, Jason Strong, Brian Taylor, Aaron Bugher, Bob Barker, Miriam Magana, Melissa Hughes, Sunbelt Drlg: Ramon Juan Alcala, Osvaldo Montes, Pedro Barrientos
0905 MK calls Mark Paddock (EA-PM) to discuss order of borings. Would like to start w ones to East (near creek, low area). Okay w him. also discuss sampling all then installing MWs or sample, switch rig tooling to HSA & install well when we are there. he says no preference. Whatever is easier (as far as drill rig tooling). Driller says he can do either way, going back later (2nd trip to each MW) about same as switching & installing well w one trip.
MK

Location Dallas, Dallas Co., TX Date 1-13-2020
Project / Client Lane Plating / EPA Region 6

Proceed to JSB-07
& location, go over sampling methods w/ driller for extra volume, will need @ least 2 pushes to 2', w/ several to 0.5'. See field boring log for description.
SAMPLES: 0-0.5', 0.5-2.0', 2'-5', 5-10', 10-15 OR Refusal.
Jars: Metals = 1-8oz amber, Hex Cr = 1-4oz clear.
ORP + PH = 1-16oz clear (only 2 intervals ~~from~~ MK for today, from 4 locations).
Push 0-2 recover ~2".
Push 0-4 × same.
Discuss options w/ driller: he thinks drive shoe (dual tube system) is pushing soft clay to side & small plastic liner not filling. Also, clay may be sliding out & breaking off (liners have built in catcher). Can try larger liners (Macrotubes). Will have to go to shop (FW)
MMK

Location Dallas, Dallas Co, TX Date 1-13-2020.
Project / Client Lane Plating / EPA Region 6

& get them ~2 hours.
0945 MK calls MP & discuss/update.
↳ Drillers leave.
Back @ command post.
Gauge MW-1: dtw = 6.57' toc 1020
@ 55-6' collect
1215 0-0.5' w/ scoop &
1230 0.5-2.0 w/ Hand Auger
each 1-8oz amber 1-4oz clear
Drillers back @ site
Fat black plastic clay, stiff, moist. trace wht calc. nodules (very fine).
MK

1230 Hammer @ JSB-07, see field log
3 pushes, 0-2' for volume
Collect 0-0.5' 0.5-2.0 2.0-5.0, 5.0-10.0, 10.0-15.0. tw @ 15'.
~~stiff~~ soft-stiff plastic clay, moist. Dk brown / Dk gray to gray.
MK

JSB-8; see field boring log
1315 Push hammer
(M Paddack @ location)

MMK

Rite in the Rain

Location Dallas, Dallas Co., TX Date 1-13-2020
Project / Client Lane Plating / EPA Region 6

JSB-8
collect all intervals (10 @15')
Duplicate 5'-10'
MS/MSD 10'-15' (triple volume Hex(n.)
MK

MW-04: see field boring log
1412 Hammer/push samplers.
@~9' moist-wet (brown-blck Clay,
sl silty. Some mst-wet downto
~13'/13.5'. @~14' Ling to MK to
mst-dry, sl Silty/shale,
Refusal @ 15 ft
MK calls Aaron B; Δ ORP/pH
sample from 2.0-5.0 to
10.0-15.0 intervals due
to low volume 2-5 + good
volume 10-15.
MK

1501 Push/Hammer MW-05
Refusal @ 10' (See field log),
Ling to vhrd, dry, silty fine ~8.6'
wet sft clay ~7' ↓.
~1530 drillers off location

Location Dallas, Dallas Co., TX Date 1-13-2020
Project / Client Lane Plating / EPA Region 6

1545 - leave MW-05 location
MK calls M Faddoul confirm
Non-Austin Chalk wells will be
installed w/ TD @ refusal point.
Process samples / pack coolers.
1706 leave site (9099.3)
1805 @ EA (9133.0)

1/13/2020

Location Dallas, Dallas Co., TX Date 1-14-2020
Project / Client Lane Plating / EPA Region 6

0725 leave EA (9133.1)
0825 @ site (9163.3)
Safety Meeting, M. Kelly, J. Stroup
B. Taylor, J. Meinerts, J. Flores,
D. Simon, A. Magana, M. Hughes,
B. Barker, A. Bugher
Subcont: Juan Alcala, Osvaldo Montes,
Pedro Barrientos.
Saw cutter: Francisco Castillo
Sawcutting for ACMW-02 (2x2)
& MW-09 (12" core).
Cut limbs for ACMW-04 & MW-10.
Jason S. on phone w/ Mark Paddock,
discuss switching 04 & 10
locations so don't have to cut
limbs, he is okay w/ that.
Will put ACMW-04 @ edge
of concrete; A) out of tree line,
B) will get better pad, rather
than up on grass (higher than
concrete). Since saw cutter here,
can cut 2x2 for drilling
0915 @ MW-04 w/ Geoprobe &
CFAs to auger down & set well.

Location Dallas, Dallas Co., TX Date 1-14-2020
Project / Client Lane Plating / EPA Region 6

MW-04: TD = 15' (Refusal).
5' Riser, 10' screen, 1 centralizer
@ top of screen. 0.010" slots, 20/40 sand.
top sand @ 3'; 3'-2' Bentonite; will
set concrete surface seal 2'-0'.
0955 Move rig from MW-04 to MW-05
MW-05: TD = 10' (Refusal)
5' Riser, 5' screen. 0.010" slots, 20/40
top sand @ 3'. Bent. 3'-2'.
MK

1030 Push/Hammer 0-2 MW-06
JM, RS collecting samples (see field log)
0'-0.5', 0.5'-2', 2'-5', 5'-10'.
1042 @ 16', No Refusal, continue ↓
Hard fm @ ~19'; TD @ 20'
TD sample 17'-19'
Metals, HexCr, plus ORP/pH 0.5'-2'
DUP 2.0-5.0! MS/MSD 5'-10'
MK

1105 CFAs, auger to 20' &
set well: 5' Riser & 15' screen.
0.010" slots, 20/40 Sand. 2" PVC
Top sand 3'. Bent 3'-2'.
MK

Location Dallas, Dallas Co., TX Date 1-14-2020
Project / Client EPA Region 6 / Lane Plating

1345 MW-07. Sample w/ DPT
0-0.5', 0.5-2.0', 2.0-5.0',
5.0-10.0. See field boring log.
Refusal @ 14'. TD sample 12-14
Switch to Continuous Flight Augers.
Auger to 15' & set well.
2" PVC, 5' Riser, 10' Screen
T/Sand to 3ft, Bent. 3'-2'.
0.010" slots, 20/40 Sand.
(wet @ ~11.5'-11.7')
AK

1430 Push/Hammer 0-2 JSB-9
sample 0-0.5 0.5-2.0', 2.0-5.0',
5.0-10.0. See field boring log.
Refusal @ 14'. TD sample 12-14.
* More silt/sand, starting ~10',
especially ~12'. (moist-wet).
AK

1510 JSB-10 start sampling (DPT)
Sample 0-0.5', 0.5-2.0', 2-5', 5-10.
(wet @ ~6', silty/sandy).
Refusal @ 13'. TD sample 11-13
* Stuff above 12-13' interval sample,
mod. sand, loose, wet. *

Location Dallas, Dallas Co., TX Date 1-14-2020
Project / Client EPA Region VI / Lane Plating

1535 Drillers off site.
@ Command Post, process samples
& pack coolers
1730 leave site (9164.0)
1830 @ EA (9197.7)

1/14-2020

Location Dallas, Dallas Co., TX Date 1-15-2020
Project / Client Lane Plating / EPA Region VI

0730 leave EA (9197.8)
0840 @ site (9234.1)
Safety Mtg: M. Kelly, B. Barker, J. Meinerts, R. Gush, B. Taylor, A. Butler, M. Magana, M. Hughes, D. Simon, J. Flores
Sunbelt: Juan Alcala, Osvaldo Montes, Pedro Barrientos.
Cloudy, sm vlt Rain/mist, 60's.
Collecting PFAs today; R. Gush will process PFA samples @ location away from drill Rig + EA truck processing regular samples (J Meinerts, M Kelly).
Start @ ACMW-01 (Austin Chalk MW) will sample to Refusal + return later w/ larger Rig to set 8" sch 40 PVC in 10" Borehole; grout + let set before continuing to 30' w/ HSAs. Regular MWs are set @ refusal depth w/ 2" PVC.
0911 ACMW-01 (grass) Start 0-2 some trash/debris 0-5. Moist ~ v moist 11.0-11.3 Hard/dry 11.3. Refusal @ 12' (See Field log)

Location Dallas, Dallas Co., TX Date 1-15-2020
Project / Client Lane Plating / EPA Region VI

~~0955 @ JSB-11; start 0-2~~ MK
@ ACMW-01: Sample 0-0.5; 0.5-2.0; 2-5; 5-10; 10-12. PFAs @ 10'-12' only
MS/MSD 0-0.5 MK

0955 @ JSB-11; start 0-2. Collecting same intervals; PFAs @ all except 0-0.5'. See Field log
Dup 5-10, MS/MSD 0.5-2.0

1100 Move to next hole; MW-09 (working inside 12" core hole in concrete) not able to separate pushes v. Fun; may be intersecting previous pushes/holes.) Poor Recovery 0-2 (12") + 0-4. (See Field log)
* PFAs on all except 0-0.5' *
0-1'; concrete + fill sand; native black clay starts ~1'. * For sampling; use Fill sand 0-0.5 + Black clay 0.5-2.0
* Plan to move any extra volume samples to next hole (ACMW-02); 2x2 sawcut in concrete (for 10" hole + 8" surface casing); more Room to work w/. * Hard Fm 12-12.5' ORP spt 10'-12'. Refusal @ 12.5' * Some moisture above 12', not wet.

ACMW-02 See Field boring log
1320 Start 0-2' (concrete, 2x2 sawcut)
moist, not as moist/wet as other holes (? covered ~~[illegible]~~ area?).
Similar to MW-09
Refusal/TD @ 12.5'.

MK

1412 ACMW-04 (conc 2x2 sawcut)
Refusal @ 15', last ft v moist, moist from ~8' down. More silt/siltier than other holes, @ bottom, abdt CaCO3 nodules (see field boring log)

MK

~1500 ACMW-03 (horse pasture).
* Refusal @ ~~4~~ 6 ft *
0-2 Topsoil / Brown sandy Clay / Clay
2-4 weathered stiff, crumbly marl/chalk
4-6 harder, competent chalk.
TD/Refusal @ 6 ft. See field log

MK

Stop for the day
1550 Drillers offsite; boreholes @ ACMW-03 filled w/ bentonite, in horse pasture.

1610 Mikelly calls Mr Paddack:
Discuss setting wells w/ refusal @ 6 ft.
- call driller to see if they have 2½ ft screen.
- Also setting surface casing to 5 ft, still drill to 30 ft for Austin Chalk well? We will see how hard drlg is.
- Background @ MK samples; may not get to 15 ft. (?)
- tomorrows work & downsizing crew
- surface conditions & drlg to set surface casing Friday. (weather).
Processing samples / packing coolers.
1841 leave site (9234.6)
1916 @ EA (9265.1)

Mark Kelly
1-15-2020

Location Dallas, Dallas Co., TX Date 1-16-2020
Project / Client Lake Mating / EPA Region VI

0720 Leave GA (9265.2) Heavy Rain!
0825 @ site (9295.3)
M Kelly; J. Meiners.
B. Barker + M. Magana
Sunbelt @ site
Waiting for Aaron W (or Jason S?)
w keys.
Safety Meeting: EA + Sunbelt
(Juan Alcalá, Pedro Barrientos,
Osvaldo Montes).
Safety Mag: WEATHER!
Thunder / Lightning.
0900 B. Barker + M. Magana leave site
to go get bubble wrap bags
0900 M Kelly + J Meiners observing
crew setting 2" well @ MW-09
(12" core in conc, by dry doors,
sampled yesterday). Refusal
@ 12.5', Plan to set 7.5'
screen + 5' Riser, T/Sand 3'.
On phone w/ M Paddock (update)
Plans for today. Confirm
set 2" well w/ 6" ft (if
MW-08 is like AEMW-03)

Location Dallas, Dallas Co., TX Date 1-16-2020
Project / Client Lake Mating / EPA Region VI

MW-10 (see Field boring log)
0930 Start 0-2
0950 Refusal @ 18'.
Δ from brown to yellow ~ 9'.
Set 2" well: 10' screen (18-8)
Sand Pack (20/40) to 6'.
Bentonite chips 6'-4'.
MK

JSB-6 (ingrass, N of office)
see field boring log for descriptions
1040 Sampling, DPT
TD @ 15' (TD sample 13'-15')
Becoming moist (some sl moist) below 10'.
MK

JSB-5 (grass, south of chainlink fence)
1126 Start push/hammer 0-2/4.
see field boring log. for descriptions
TD @ 15', mostly dry - v sl moist.
MK

MW-08 sample w/ DPT (push/hammer)
see field boring log. TD @ 6'
(0-2 topsoil, 2-4 weathered chalk,
4-6 more competent (harder chalk).
MK

Location Dallas, Dallas Co, TX Date 1-16-2020
Project / Client Lane Plating / EPA Region VI

MW-08 set 2" PVC well
5' Riser: +1.5 to -3.5
2.5' Screen: -3.5 to -6
Top Sand to -2.5
Bentonite to

MK

Drillers off site, take Geoprobe back to shop for weekend
- Tomorrow, use CME Rig to drill ~~to~~ MK 10" boreholes + set 8" PVC casing to (into top of Austin Chalk @ 4 ACMW wells. - Grout annulus + inside casing + let cure over weekend.
- Monday drill out + set ACMWs. (Also, GPRS @ background samples).
- Tuesday, Geoprobe back to do background + set bollards.

Processing samples/packing coolers.
1623 leave site (100 22.3) {EA32}
1718 FedEx. SAS.
1745 @ EA (100 41.5)

Location Dallas, Dallas Co. TX Date 1-17-2020
Project / Client Lane Plating / EPA Region VI

0700 leave EA (100 61.5)
0740 @ site (100 91.9)
~0800 Drillers arrive
Safety Mtg: M. Kelly, J. McIverks
Sunbelt (T. Alcala, O. Montes, P. Barrientes).
Walk to ACMW-3 location (horse pasture) to check site conditions
Attempt to drive Rig to location, can't get thru gate, tires spinning on wet ground.
(Driller also worried about grouting holes while raining, not enough cement + won't spread).
MK calls M Paddack to discuss
No Rain over weekend. Maybe better to wait til Monday.
Set surf. csg Monday morning + then start on Background sampling afternoon. Crew plans to get plywood if needed.
0850 Drillers off site. Take trailer w/ steam cleaner + Rig to shop.
0900: Waiting for call from Pat Appel

Location Dallas, Dallas Co., Tx Date 1-17-2020
Project / Client Lane Plating / EPA Region VI

Pat Appell about sampling @ another site this morning before heading back to office.
1400 (10092.4) Leave Lane Plating

1-17-2020

Location Dallas, Dallas Co., TX Date 1-20-2020
Project / Client Lane Plating / EPA Region VI

0700 (10176.4) EA
0735 (10006.7) @ site
M. Kelly, J. Flores, J. Strong, J. Meinerts, B. Barker, D. Simon, M. Magana, A. Bugher,
Cold, clear sunny, still.
Safety Mtg: EA & Sunbelt (Juan Alcala, Pedro Barrientos, Osvaldo Montes).
0845 Move CME-75 Rig to ACMW-03 (Horse Pasture); TD @ 6'
0858 Turning Hollow Stem Augers (HSA)
Topsoil 0-2', weathered chalk 2-4, Hard chalk 4-6.
10" HSA to 5 ft bgs & set 8" PVC Casing to 5 ft; will grout all 4 wells @ same time.
0910 Lay down mast & move Rig. Set up @ ACMW-04 (tree)
TD @ 15'; top of chalk 14.5 bgs (?)
~0910 Augering
0940 @ 15 ft set 8" casing to ~15.5' (~0.5' below conc ~~surf~~ level).
Water coming in fairly rapidly not much on augers @ least bottom 10 ft.

Rite in the Rain

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LANE PLATING

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ALL-WEATHER
ENVIRONMENTAL
№ 550F

LANE
PLATING

Soil Sampling
(Drilling)

Location Dallas, Dallas Co., Tx Date 1-17-2020
Project / Client Lane Plating / EPA Region VI

Pat Appell about sampling @ another site this morning before heading back to office.
1000 (10092.4) Leave Lane Plating

1-17-2020

Location Dallas, Dallas Co., Tx Date 1-20-2020
Project / Client Lane Plating / EPA Region VI

0700 (10176.4) EA
0735 (10006.7) @ site
M. Kelly, J. Flores, J. Strong, J. Meinerts, B. Barker, D. Simon, M. Magana, A. Bugher,
Cold, clear sunny, still.
Safety Mtg: EA & Sunbelt (Juan Alcala, Pedro Barrientos, Osvaldo Montes).
0845 Move CME-75 Rig to ACMW-03 (Horse Pasture), TD @ 6'
0858 Turning Hollow Stem Augers (HSA)
Topsoil 0-2', weathered chalk 2-4, Hard chalk 4-6.
10" HSA to 5 ft bgs & set 8" PVC Casing to 5 ft; will grout all 4 wells @ same time.
0910 Lay down mast & move Rig. Set up @ ACMW-04 (tree)
TD @ 15'; top of chalk 14.5 bgs (?)
~0910 Augering
0940 @ 15 ft set 8" casing to ~15.5' (~0.5' below cone ~~surf~~ level).
Water coming in fairly rapidly, wet mud on augers @ least bottom 10 ft.

Location Lane Plating Date 1-20-2020
Project / Client Dallas, TX / EPA Region VI

1005 @ ~~AM~~ ACMW-02 (Bay Doors)
Auger down w/ 10" HSAs.
1015 GPRS arrives. Jose Flores w/ go w/ them to background area
ACMW-02, @ ~12.5' w/ 10" HSAs;
1022 pull & set 8" casing
13' of 8" PVC ~ 0.5' below concrete level (bottom csg ~13.5').
1040 Move to next location, ACMW-01
~1045 Auger down to ~12 ft w/ 10" HSA.
Set 13' of 8" casing (cut-off).
ACMW-01.
Lunch
~1230 Mix grout & set 8" casing, -01
@ ACMW-02 (bay doors)
Mix grout & set 8" casing.
1310 @ ACMW-04 (tree)
Mix grout & set 8" csg.
@ ACMW-03 (pasture)
Mix grout & set casing.
1340 leave ACMW-03
Check other wells. Top off grout in annulus @ -04 & -02. & -01 (only settled < 1.0 ft).

Location Dallas, Dallas Co. TX Date 1-20-2020
Project / Client Lane Plating / EPA Region VI

1400 Proceed to Background sampling area off Stag Road; N-NE of site.
Set up @ BSB-3; see Field log.
1435 Start push/Hammer 0-2.
* R. Guth collects PFAs samples.
J. Meiners, M Kelly collecting metals, Hex Cr, & one(1) ORR pt.
0-0.5'; 0.5-2'; 2'-5'; 5'-10'; TD (13-15).
BSB-3; TD @ 15' (Stop - NOT Refusal).
1520 Start sampling BSB-1 (this location moved to between -3 & -6). see Field log. TD/Stop @ 15' (NOT Refusal).
1555 Start BSB-6. see Field log.
TD/Stop @ 15' (NOT Refusal).
* BSB-3; mostly soft, v moist-wet Clay. -1 & -6' stiff-v stiff, moist-dry. *
~1430 leave Background area.
@ Command Post/process samples.
1811 leave site (10213.4)
1855 @ EA (10243.9)
1-20-2020

Location Dallas, Dallas Co., TX Date 1-21-2020
Project / Client Lane Plating / EPA Region VI

0705 leave EA (10243.9)
0745 @ site (10274.2).
M Kelly, J Meinerts, B. Barker, R. Smith, A Bugher
Sunbelt: Juan Alcala, Pedro Barrientos, Osvaldo Montes
Check ACMWs grout: Fallen to ~2ft bgs inside + outside (annulus) of 5" PVC casing.
Proceed to Background Area
0858 Start @ BSB-8: see field boring log for descriptions. Sampling protocol same as previous (R. Smith - PPAs; J Meinerts M Kelly other).
TD @ 15' (NOT Refusal).
0943 BSB-5: see boring log
TD @ 15' (NOT refusal)
1022 BSB-7: see field log
TD @ 15' (NOT refusal)
1057 BSB-4: see field log
TD @ 15' (NOT refusal)
~1140 BSB-2: see field log
TD @ 15' (NOT refusal)
1200 Drillers off location / lunch

Location Dallas, Dallas Co. TX, Date 1-21-2020
Project / Client Lane Plating / EPA Region VI

ACMW-03

Weather: Low 40's, clear + sunny, calm.
1315 Proceed to ~~ACMW-04~~ (horse pasture) DPT - refusal @ 6' (top weathered Chalk 2') 8" casing (10" hole) set ~~w/~~ 5' bgs + grouted.
10': Chalk (Marl)
N 5/ - gray. Hrd, dry, massive, silty
1355 15': 5Y 7/1 - 4/1
1403 @ 20': Stop + set well (per M Paddack).
10' screen 2" PVC
1407 HSA out of hole. Set well w/ 10' screen + 10' Riser.
Hole collapses to ~15'. M Paddack decides to Δ to 5' screen + 10' Riser (to get good seal).
Screen 15-10 Top Sand to ~8'
Riser 10-0 Bent. to 3'.
MK
~1430 Processing Samples / Pack coolers
1450 MK → 6 PS Background locations
1643 leave site (10277.0)
1732 @ EA (10311.2)
M Kelly 1-21-2020

Location Dallas, Dallas Co, TX Date 1-22-2020
Project / Client Lane Plating / EPA Region VI

0703 leave EA (10311.2)
0751 @ site (10341.6)
M Kelly, J. Meinerts
Sunbelt, Juan Alcala, Pedro
Barrientos, Osvaldo Montes
Safety Meeting.
40's; cloudy / misting - lt Rain
light S.E.; 89% Humidity,
(46°/39°) Feels like 39°. P=30.10"
0829 Start drlg out ACMW-04
(8" csg to 15' bgs; grouted).
@ 30' drillers says alt.
hard & softer intervals.
Cuttings stayed wet (never
completely dry like -03). Break
open ~~frag~~ mc larger fragments
off cuttings; marl/chalk dry
vs moist. Last 4 ft hard.
@ 10YR 6/2. Hard, silty, som
clayey / v clayey, softer, plastic.
See field boring logs.
TD @ 30'. 2" PVC to 29'.
screen 29'-19. Riser 19-0.
T/Sand 17, T/Bent chips 3'
MM MM

Location Dallas, Dallas Co TX Date 1-22-2020
Project / Client Lane Plating / EPA Region VI

Call M Gallack & update; discuss
next week.
ACMW-02 (Bay door)
DPT Refusal @ 12.5', 8" csg/grout to 13'
0957 Drilling out grout
1003 @ 15' wet / sloppy
15-20: driller says stiff to 19',
short soft interval, then stiff/hard.
Cuttings drying out; dry w/ hard
fragments & powder.
1009 @ 20'.
20'-25': Very dry by 22'/23',
powder + fragments.
1013 @ 25' 5Y 6/1 gray. Hard, dry
~1020 @ 30'. SAT. TD / COB.
Pull HSAs. Set 2" PVC well.
Hole open to ~~24/24.5'~~ 26/26.5
26.5-16.5 screen ~~24.5'-14.5'~~, Riser to 0.
Top Sand ~~12.5'~~ 14.5 Bent to 3'.
MK

1104 Drill out ACMW-~~04~~ (BK 01
(TD/DPT @ 13'; 8" casing to 13')
Start hard dry @ 13' / bottom of csg.
Fairly hard all the way down.
MM MM

Location Dallas, Dallas Co., TX Date 1-22-2020
Project / Client Lane Plating / EPA Region VI

ACMW-01

Dry cuttings from 13' ↓.
1120 @ 20': Hard, dry, gray 5Y 6/1 (samples above from 12'/13').
1125 @ 25' saa (powder + frags)
1130 @ 30' saa; TD
Pull HSAs
1140 Go in w/ 2" PVC; hole open to 27'.
Screen 27'-17'; Riser to 0.
Top Sand 15'; top Bent. 3' bgs.
MK

Will begin developing w/ drillers sub pump.
Gauge MW-10 before develop
dtw = 12.89' toc / ~10.6' bgs
1324 Pump on, see field sheet.
v muddy, wait before recording parameters.
1345 Remove one drum; turbidity <10 NTU.
Stop developing.
1351 @ ACMW-04: dtw = 9.86' toc
Turn on pump, v. v. muddy water. Sturgity well w/ pump.
~~Remove one drum before~~
MK

Location Dallas, Dallas Co., TX Date 1-22-2020
Project / Client Lane Plating / EPA Region VI

ACMW-04

Remove one drum before start recording parameters (water ~~v. v.~~ muddy)
1440 Recording parameters; turbidity drops from 47 to 30-35.
dtw stays @ 19.3'-19.4' toc.
See field data sheet.
1510 Filled 2nd drum; Turbidity = 35 NTU.
Will stop developing; may come back later.
* Also, water @ MW-10 has light green tint *
Gauge ACMW-02 (bay door)
~3 ft water
1530 (dtw ~ 22.85; TD ~ 25.8)
Collect Rinsate from HSA bit.
(Note: collecting TD samples from ACMW wells from drill cuttings, Metals + Hex Cr).
1540 Leave site (103433)
1640 @ EA (103797)
1-22-2020

Location Dallas, Dallas Co. TX Date 2-23-2020
Project / Client Lane Plating / EPA Region VI

0708 leave EA (10375.0)
0755 @ site (10408.3)
M. Kelly, Bob Barker; Sunbelt
(Juan Alcala, Pedro Barrientos,
Osvaldo Montes).
Safety Meeting.
Developing wells & installing
surface pads / completions.
Cold, cloudy, slight mist in morning.
weather clearing.
0830 @ MW-09 (Bay dock). Developing
initial dtw = 7.91' toc.
pumps dry quickly. let recharge
& pump down repeatedly.
See field data sheet!
TD = 12.8' toc / screen 12.5-5.
(w/ end cap)
Top sand 3'-1', Bentonite 3'-1'
0900 Gauge ACMW-02 (yesterday 22.8')
dtw = 9.45' toc (TD 25.8')
1000 Pads @ ACMW-04 & MW-10 (tree)
are done.
1015

Location Dallas, Dallas Co. TX Date 2-23-2020
Project / Client Lane Plating / EPA Region VI

1015 Developing ACMW-02 (bay dock)
dtw = 9.3' toc / flush
16-26 screen ~~14-24~~ bgs. Casing to 13'.
pumps dry quickly. let recharge
~5 minutes, turn on pump & take
sample for readings, pumps dry
~10 seconds (10-15).
MK

~1010 Gauge ACMW-01
dtw = 25.35' (TD = 27')
MK

~~Stop development @ ACMW-02~~ MK
1030 Check ACMW-3 & MW-10 (passive)
trace of water in wells (visual).
May not be enough to pump (or
measure).
MK

Stop developing ACMW-02
after pumping ~5 gals initially,
removed ~3 gal in ~1 hour.
Turbidity down to ~30-20 NTU.
Will move to next well (ACMW-01)

Location Dallas, Dallas Co, TX Date 2-23-2020
Project / Client Lone Plating / EPA Region VI

ACMW-01
initial dtw = 25.35' toc
TD = 26.45' toc (flush)
Go in w/ disposable bailer & grab sample for readings; bail 1-2 gallons; get
1215 depth to water of ~25.8' toc
1230 dtw = 25.65' toc
Call Mtuckback to update & discuss development. He doesn't want to add water to dry/v low volume wells ~~to~~ mc as part of development.
1300 Check wells in horse pasture;
ACMW-03: TD = 15.22' / DRY (~bgs)
~~MW-10~~ MW-08: TD = 7.8' toc / ~6.9' bgs DRY
MK

1315 Drillers back from lunch.
~1330 Proceed to south side; MWs 4-7
Set up @ MW-04; depth to water = 6.96' toc (~3.69' bgs)
1346 Pump on, v muddy; pump dry ~2 min.

Location Dallas, Dallas Co, TX Date 2-23-2020
Project / Client Lone Plating / EPA Region VI

MW-04 Development
Let well recharge ~5 minutes & Repeat
See field data sheet
@ 1500) Removed ~ 2/3 drums of water.
Turbidity starting to fall/clear; all other parameters stable. Turb. falls from ~2,000 NTU ~~to 59~~ NC (first readings) to 59 - 150.42
Turbidity drops to 45, 22, 19.
1555 Stop develop. / 1 Drum full.
Secure site / Conex
1633 leave site (10409.0)
1726 @ EA (10443.4)

2-23-2020

Location Dallas, Dallas Co. TX Date 2-24-2020
Project / Client Lone Plating / EPA Region VI

0705 leave EA (10443.5)
0750 @ site (10473.8)
McKelly, J. Meinerts; Sunbelt
(Juan Alcala, Osvaldo Montes,
Pedro Barrientos)
Safety Meeting
0800 Proceed to south area,
continue installing surface
pads + developing wells.
Setup @ MW-05
0815 DTW = 8.80' toc (w/ ~3 ft sticky)
td=~10'bgs/~13'toc TD = ~~10~~ bgs; Screen 5-10 ft
0820 well pumps dry very fast (~5 second)
~~Wait~~ MK let well recharge + take
readings ~~at~~ 5 minute intervals,
water starts out fairly clear - slightly
gray tint. Turbidity 33 NTU
First reading. ~~Surge well some~~ MK
drops to ~10 NTU; goes up to
15 + 20 NTU after surging.
Turbidity dropping to 13-12 NTU.
(Removed ~2 gal in 1 hour).
Stop developing + move to next
well. Mark M

Location Dallas, Dallas Co, TX Date 2-24-2020
Project / Client Lone Plating / EPA Region VI

MK calls MP ~ update + developing of
wells; discuss water levels + reading.
MK

MW-06 Development
0942 DTW = 9.67' toc w/ stickup ~2.96'
screen = 5-20' bgs (~8-23 toc).
~0945 Pump On, pumps ~1/3 drum
before slowing to trickle, then
recovers enough to pump steadily
for ~20-30 seconds, then down to a
trickle for ~10 seconds. Water very
muddy @ first (first turbidity 753 NTU
then clears to 34 NTU). DTW ~21 ft.
Well pumping good. Stop twice, let
recharge up to 12-13 ft, surge +
resume pumping.
1100 Stop developing. Removed ~
~~+~~ First Battery dead, second battery ~~not~~ MK
doesn't seem to run pump as strong.
Will use truck battery (Run line over
fence) on next well, MW-07.
Mark M

Location Dallas, Dallas Co. TX Date 1-24-2020
Project / Client Lone Star Painting / EPA Region VI

MW-07 Development.
DTW = 9.69' toc
TD = 18.02' toc ~3' stickup
Screen 5-15 bgs (~8-18 toc)
1121 Pump on (after surge water column): water fairly clear. Pumps dry, will let recharge ~5 minutes, take readings / Repeat. Let recharge ~10 minutes, surge, MK Turbidity = ~12 NTU. ~~Last~~ MK last 3 readings 7, 6, 3. Demand ~ 5 gal. during 45 minutes of pumping dry, recharge, surge, Repeat.
1210 Stop development @ MW-07
Lunch
Crew finishes last pads in pasture.
MK bails AC MW-01 again, ~1.5' water in well, getting ~1 ft per pull, then level falls to 1-2 inches. Est ~3 gallons.
~1500 Drillers off site
MK, JM label drums
Inventory equipt supplies.

Location Dallas, Dallas Co. TX Date 1-24-2020
Project / Client Lone Star Painting / EPA Region VI

DRUMS:

15 Soil
7 Development Water
1 ~~Purge~~ Decon Water
2 empty (for purge water)
25 TOTAL

MK

1606 leave site (10481.1)
1700 @ EA (10514.0)

1-24-2020

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-14-20

Sediment and Surface Water Collection Field Form

Exposure Area: LSW-1

GPS Coordinates:

Lat: —

Long: —

Sampling Personnel: BT, JS, DS, MM

Sample Date: ~~LSW-1~~ MM 1-14-2020

Weather Conditions: 62°F, Cloudy

Surface Water ID: LSW-1

Collection Time: 1025

Sediment ID: —

Collection Time: —

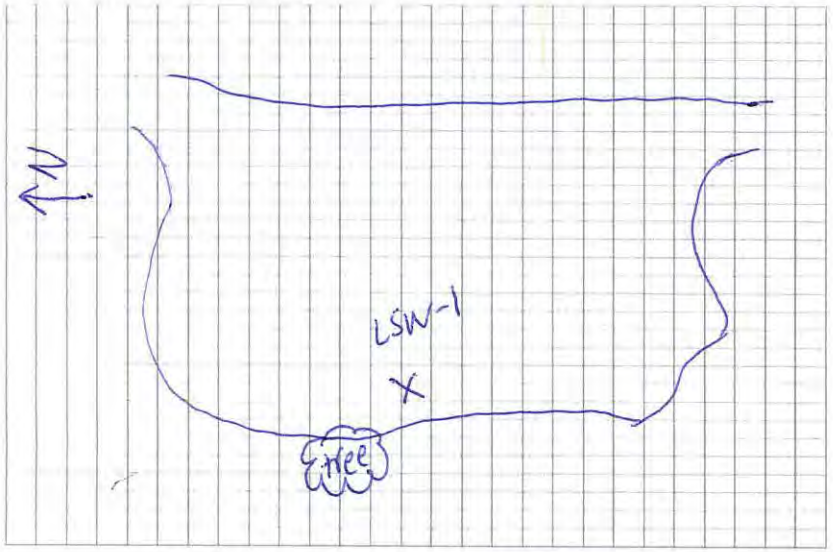
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

Surface Water Parameters:

Temperature: 14.3 °C pH: 7.46 Conductivity: 1070 ~~mS~~/cm MS ~~TDS:~~ — ppm ORP: 47.4 mv Turbidity: 4.52 ntu

DO: 5.15 mg/L
DO%: 50.7

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs DOCs

Notes/Comments: 6 in water depth, no flow

Recorded By: Miriam Magaña

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-20-20

Sediment and Surface Water Collection Field Form

Exposure Area: LSW-4

GPS Coordinates:

Lat: 32.686604

Long: -96.769229

Sampling Personnel: DS, BB, MM

Sample Date: 1-20-2020

Weather Conditions: 49°F, Sunny

Surface Water ID: LSW-4

Collection Time: 1115

Sediment ID: —

Collection Time: —

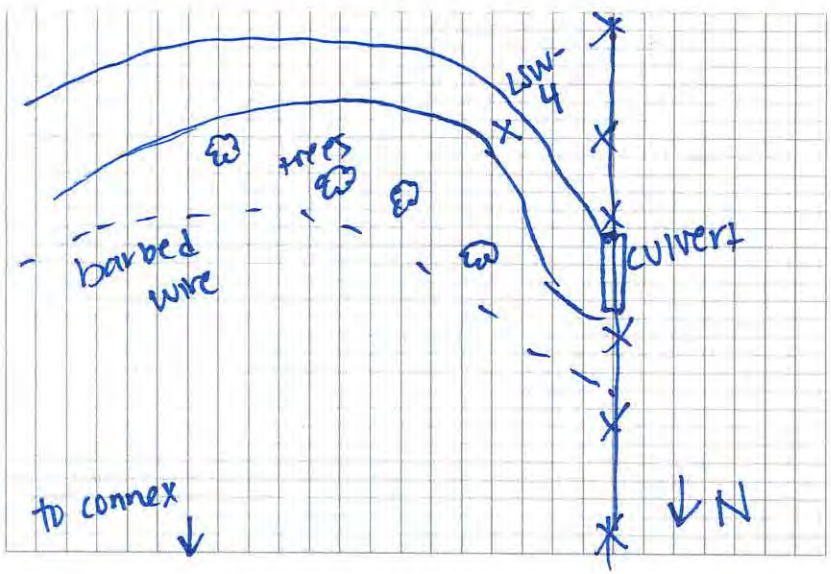
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

Surface Water Parameters:

Temperature: 8.2 °C pH: 6.67 Conductivity: 445.1 ~~mS~~/cm µS ~~TDS:~~ ~~ppm~~ ORP: 157.8 mv Turbidity: 9.7 ntu

DO: 2.4 mg/L
DO%: 20.7

Location Map:



Depth (bgs):

Sampling Method:	Analyses:		
Geoprobe	AVS/SEM	PFCs	Alkalinity SW
Slide Hammer Probe	Cyanide	pH	
Scoop	Hardness	SVOCS	DOC SW
Ponar	Hexavalent Chromium	TDS	
Core Sampler	Metals (Dissolved)	TOC	
	Metals (Total)	TPH	
Pump	ORP	TSS	
Dipper	PCBs	VOCs	

Notes/Comments: 2.5 in. water depth

Recorded By: Miriam Magaña

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-14-20

Sediment and Surface Water Collection Field Form

Exposure Area: LSW-~~LSED~~ MM -9

Sample Date: 1-14-2020

GPS Coordinates:

Lat: —

Long: —

Weather Conditions: 62°F, Cloudy

Surface Water ID: LSW-9

Collection Time: 1005

Sampling Personnel: BT, JS, DS, MM

Sediment ID: —

Collection Time: —

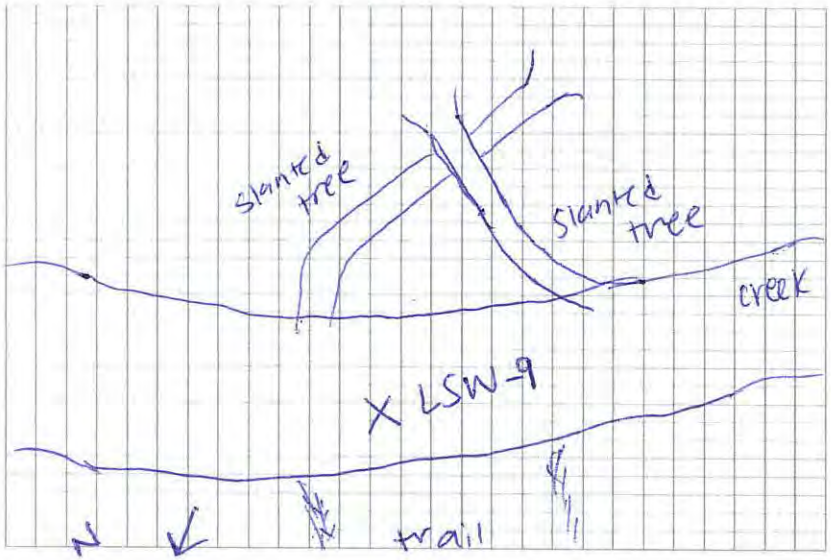
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

Surface Water Parameters:

Temperature: 10.7 °C pH: 7.41 Conductivity: 651.8 ms/cm MS TDS: ____ ppm ORP: ~~7.84~~ MM ~~784.4~~ 94.2 mv Turbidity: 7.20 ntu

DO: 3.49 mg/L
DO%: 32

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs DOCs

Notes/Comments: Analyses DOC, 8in water depth, no flow

Recorded By: Miriam Magaña

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-13-2020

Sediment and Surface Water Collection Field Form

Exposure Area: LSW-14

GPS Coordinates:

Lat: —

Long: —

Sampling Personnel: Jason Stroup

Sample Date: 1-13-2020

Weather Conditions: Cloudy, 65°F

Surface Water ID: LSW-14

Collection Time: 1603

Sediment ID: —

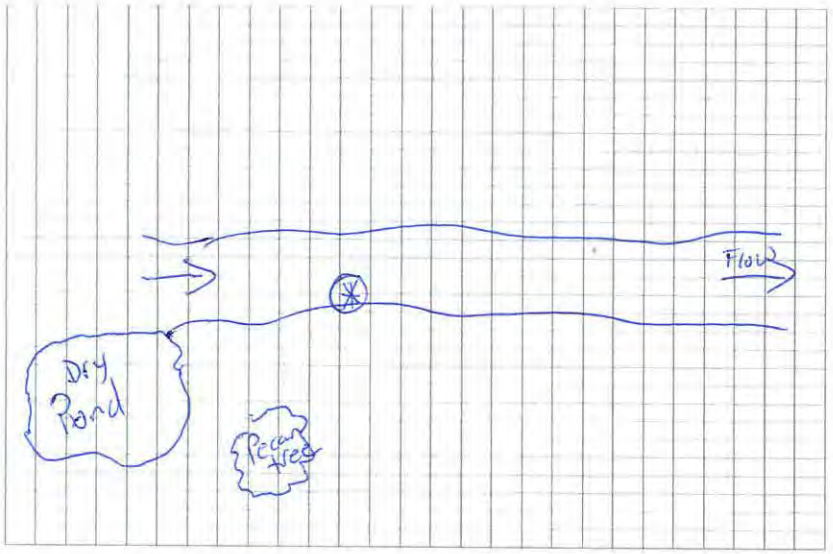
Collection Time:

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

Surface Water Parameters:

Temperature: 12.6 °C pH: 7.52 Conductivity: 1168 ms/cm TDS: — ppm ORP: 51.7 mv Turbidity: 2.39 ntu DO 9.34 mL

Location Map:



Depth (bgs):

Sampling Method:	**Analyses:**	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: Parameter readings only

Recorded By: [signature]

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-14-2020

Sediment and Surface Water Collection Field Form

Exposure Area: BLSW/BLSED-1

Sample Date: 1-14-2020

GPS Coordinates:

Lat: 32.689829

Long: -96.768690

Weather Conditions: 63°F, Cloudy

Surface Water ID: BLSW-1

Collection Time: 1125

Sediment ID: BLSED-1

Collection Time: 1155

Sampling Personnel: BT, JS, OS, MM

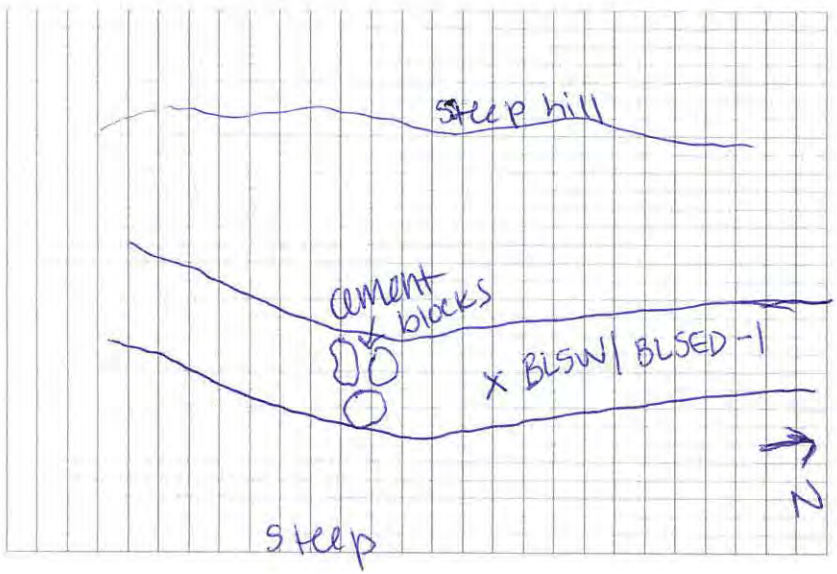
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
~~gravelly clay~~ gravel w/ some clay, brown, non-dense, ~~non~~ low to no plastic, moist, fine to gravel, sub angular to sub rounded

Surface Water Parameters:

Temperature: 15.5 °C pH: 7.65 Conductivity: ~~11.14~~ MM 1114 mS/cm TDS: ppm ORP: -28.5 mv Turbidity: 1.46 ntu

DO: 6.97 mg/L
DO%: 70.4

Location Map:



Depth (bgs):

Sampling Method:		Analyses:	
Geoprobe		AVS/SEM SED	PFCs
Slide Hammer Probe		Cyanide	pH SED
Scoop		Hardness	SVOCS
Ponar	SW/SED	Hexavalent Chromium	TDS
Core Sampler		Metals (Dissolved) SW	TOC SED
	SW/SED	Metals (Total)	TPH
Pump		ORP SED	TSS
Dipper		PCBs	VOCs

Notes/Comments: 1 ft water depth

Recorded By: Miriam Magaña

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-20-20

Sediment and Surface Water Collection Field Form

Exposure Area: BLSW/BLSED-2

GPS Coordinates:

Lat: 32.690141

Long: -96.768838

Sampling Personnel: DS, JS, JF, MM

Sample Date: 1-20-20

Weather Conditions: 55°F, Sunny

Surface Water ID: MM ~~8~~ BLSW-2

Collection Time: MM ~~1445~~

Sediment ID: BLSED-2

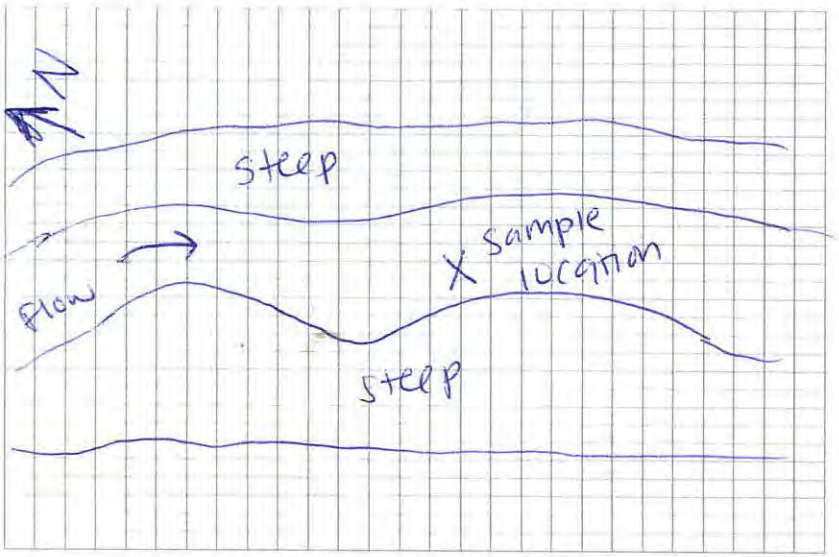
Collection Time: MM ~~1445~~ 1425

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): silty loam w/ gravel, brown, non dense, non plastic, moist, gravel, sub rounded to subangular

Surface Water Parameters:

Temperature: 11.7 °C pH: 7.46 Conductivity: 632.5 ~~ms~~/cm µS TDS: _____ ppm ORP: 72.0 mv Turbidity: 2.21 ntu DO: 8.59 DO %: 78.6 %

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
(Scoop)	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
(Pump)	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: 6 in water depth

Recorded By: Miriam Magana

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Page: 1 of 1
Date: 1-14-20

Sediment and Surface Water Collection Field Form

Exposure Area: BLSW/BLSED - 3

Sample Date: 1-14-2020

GPS Coordinates:

Lat: 32.690185

Long: -96.769117

Weather Conditions: Sunny, 69°F

Surface Water ID: BLSW-3

Collection Time: 1400

Sampling Personnel: BT, JS, DS, MM

Sediment ID: BLSED-3

Collection Time: 1355

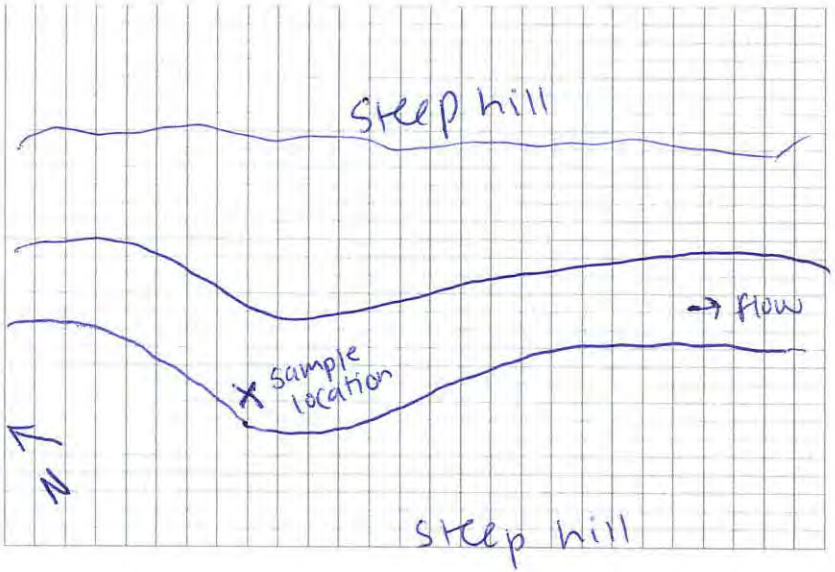
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
clay w/ gravel, brown, semi-dense to dense, high plasticity, moist, fine to gravel
gravel is sub-rounded to sub angular

Surface Water Parameters:

Temperature: 16.1 °C pH: 7.77 Conductivity: 1089 ~~ms~~/cm µS TDS: _____ ppm ORP: 2.7 mv Turbidity: 1.49 ntu

DO: 7.26 mg/L
DO% : 73.8 %

Location Map:



Depth (bgs):

Sampling Method:	Analyses:		
Geoprobe	AVS/SEM	PFCs	Alkalinity SW
Slide Hammer Probe	Cyanide	pH	DOCs SW
Scoop	Hardness SW	SVOCS	
Ponar	SW|SED Hexavalent Chromium	TDS SW	
Core Sampler	Metals (Dissolved) SW	TOC SW	
	SW|SED Metals (Total)	TPH	
Pump	ORP	TSS SW	
Dipper	PCBs	VOCs	

Notes/Comments: 8 in water depth.

Recorded By: Miriam Magaña

- need extra VOA vial MM
- add chemical to hardness jar

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Sediment and Surface Water Collection Field Form

Exposure Area: BLSW/BLSED-4

GPS Coordinates:

Lat: 32.690365

Long: -96.769831

Sampling Personnel: DS, JF, JS, MM

Sample Date: 1-20-20

Weather Conditions: 56°F, Sunny

Surface Water ID: BLSW-4

Collection Time: 1515

Sediment ID: BLSED-4

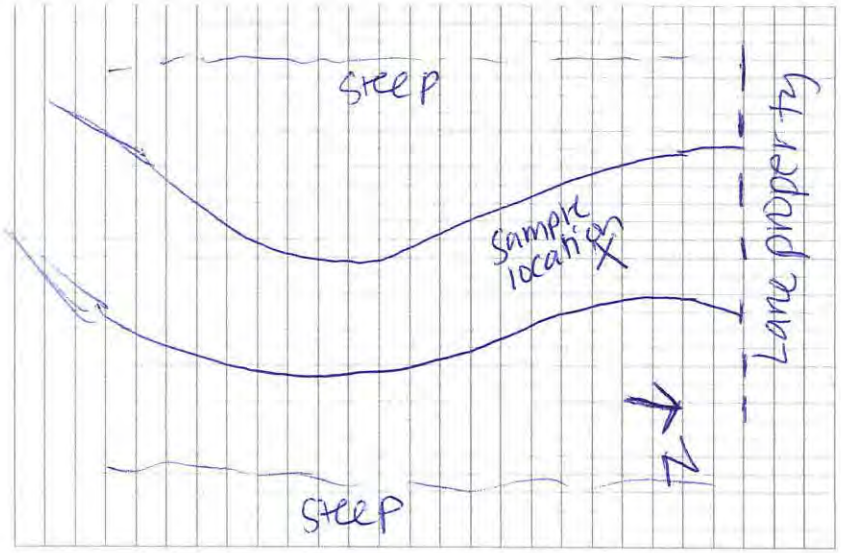
Collection Time: 1525

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
silt w/ loam + gravel, brown,

Surface Water Parameters:

Temperature: 12.2 °C pH: 7.66 Conductivity: 623.7 ms/cm ~~TDS:~~ ppm ORP: 80.5 mv Turbidity: 3.16 ntu DO: 8.84 mg/L DO%: 84.2

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: Miriam Magaña

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Dallas, Dallas County, Texas

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Sediment and Surface Water Collection Field Form

Exposure Area: BLSED-5

GPS Coordinates:

Lat: 32.686767

Long: -96.769871

Sampling Personnel: BT, JS

Sample Date: 1-14-2020

Weather Conditions: Sunny, 71°F

Surface Water ID: Dry

Collection Time: —

Sediment ID: BLSED-5

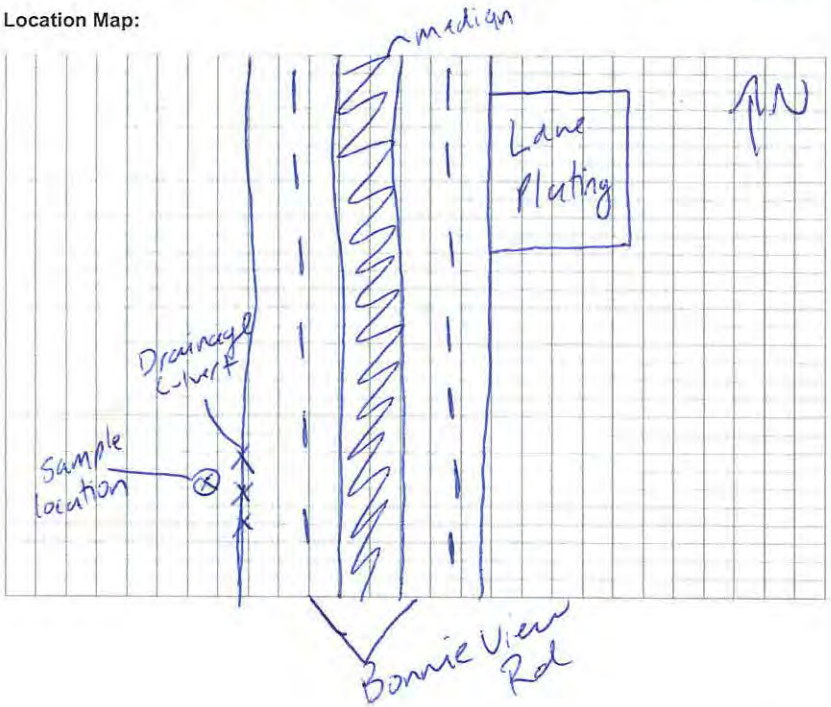
Collection Time: 1530

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
Clay with silt, dark brown, low to medium density, high plasticity, low moist to moist, sub fine grained sub angular

Surface Water Parameters:

Temperature: ____ °C pH: ____ Conductivity: ____ ms/cm TDS: ____ ppm ORP: ____ mv Turbidity: ____ ntu

Location Map:



Depth (bgs):

Sampling Method:	**Analyses:**	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: D. Simon

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

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Sediment and Surface Water Collection Field Form

Exposure Area: BLSW - ~~20~~ MM 5

Sample Date: 1-20-20

GPS Coordinates:

Weather Conditions: 50 °F, Sunny

Lat:

Surface Water ID: BLSW - 5

Long:

Collection Time:

Sampling Personnel: JS, DS, BB, MM

Sediment ID: — done on 1-16

Collection Time: — done on 1-16

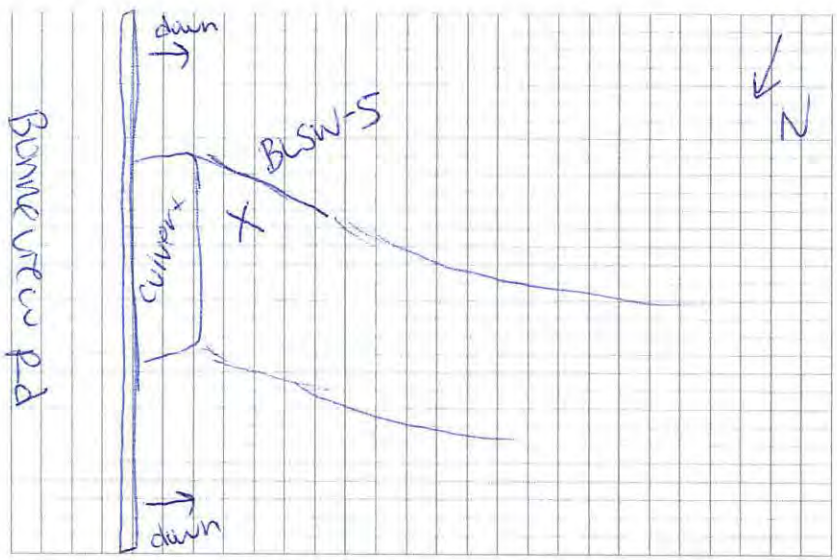
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

Surface Water Parameters:

Temperature: 8.4 °C **pH:** 6.68 **Conductivity:** 516.2 ms/cm **TDS:** — ppm **ORP:** 90.3 mv **Turbidity:** 2.23 ntu

DO: 2.93 mg/L
DO%: 26.5

Location Map:



Depth (bgs):

Sampling Method:	**Analyses:**	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments: 3 in water depth

Recorded By: Miriam Magaña

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

Date: 1-15-20

Sediment and Surface Water Collection Field Form

Exposure Area: BLSED-6

GPS Coordinates:

Lat: 32.686611

Long: -96.770537

Sampling Personnel: BT, DS, MM

Sample Date: 1-15-2020

Weather Conditions: Cloudy, humid, 70°F

Surface Water ID: — Dry

Collection Time: —

Sediment ID: BLSED-6

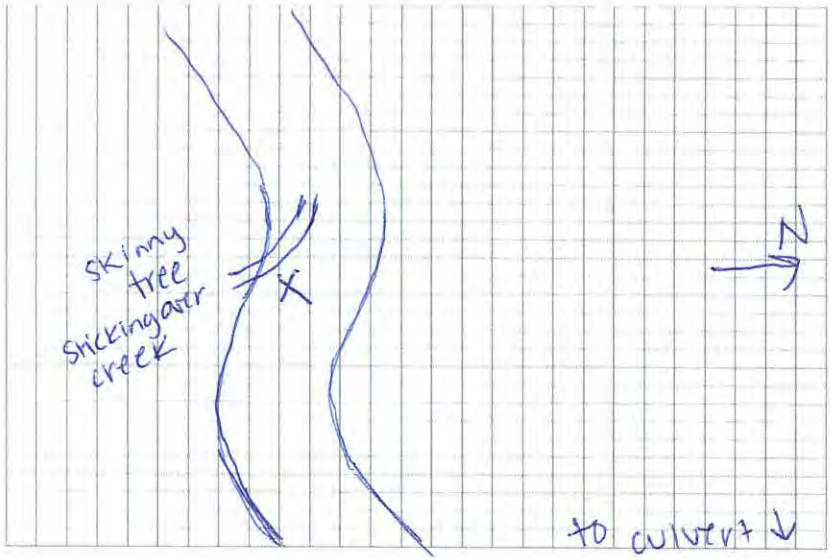
Collection Time: 0935

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
clay, dark brown, semi-dense, high plasticity, moist, fine grain, sub-angular

Surface Water Parameters:

Temperature: ___ °C pH: ___ Conductivity: ___ ms/cm TDS: ___ ppm ORP: ___ mv Turbidity: ___ ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: Miriam Magaña

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Date: 1-15-20

Sediment and Surface Water Collection Field Form

Exposure Area: BLSED-7

Sample Date: 1-15-2020

GPS Coordinates:

Lat: 32.686321

Long: -96.770866

Weather Conditions: Cloudy, humid, 70°F

Surface Water ID: —— DRY

Collection Time: ——

Sampling Personnel: DS, MM

Sediment ID: BLSED-7

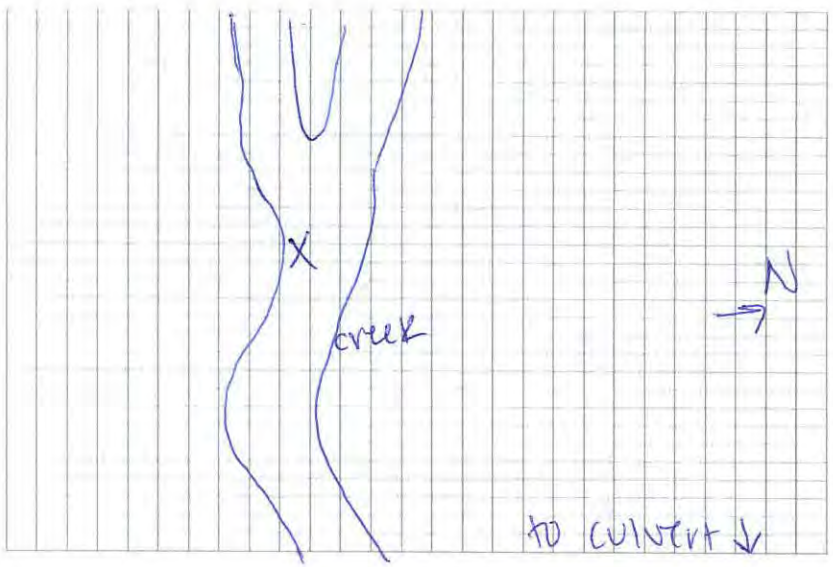
Collection Time: 1000

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other): clay, dark brown, semi-dense, high plasticity, moist, fine grain, sub angular w/ silt

Surface Water Parameters:

Temperature: ____ °C pH: ____ Conductivity: ____ ms/cm TDS: ____ ppm ORP: ____ mv Turbidity: ____ ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: Miriam Magana

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Date: 1-15-20

Sediment and Surface Water Collection Field Form

Exposure Area: BLSW | BLSED-8

GPS Coordinates:

Lat: 32.685646

Long: -96.771307

Sampling Personnel: BT, DS, BB, MM

Sample Date: 1-15-2020

Weather Conditions: cloudy, 70°F

Surface Water ID: BLSW-8

Collection Time: 1400

Sediment ID: BLSED-8

Collection Time: 1415

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
clay w/ silt, dark brown, semi-dense, high plasticity, moist, fine grain, sub-angular

Surface Water Parameters:

Temperature: 13.9 °C pH: 6.80 Conductivity: 301.2 ~~ms/cm~~ µS ~~TDS: ppm~~ ORP: 168.1 mv Turbidity: 6.14 ntu

DO: 0.5 mg/L
DO%: 7.0

Location Map:

Depth (bgs):

Sampling Method:	Analyses:		
Geoprobe	AVS/SEM		PFCs
Slide Hammer Probe	Cyanide		pH
Scoop	Hardness		SVOCS
Ponar	Hexavalent Chromium	SW|SED	TDS
Core Sampler	Metals (Dissolved)	SW	TOC
	Metals (Total)	SW|SED	TPH
Pump	ORP		TSS
Dipper	PCBs		VOCs

Notes/Comments: 8 m water depth

Recorded By: Miriam Magana

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Date: 1/13/2020

Sediment and Surface Water Collection Field Form

Exposure Area: LSED / LSW-21

GPS Coordinates:

Lat: —

Long: —

Sampling Personnel: JS, BT, DS

Sample Date: 1/13/2020

Weather Conditions: 61°F, Cloudy

Surface Water ID: LSW-21

Collection Time: 1420

Sediment ID: ~~LSW~~ MM LSED-21

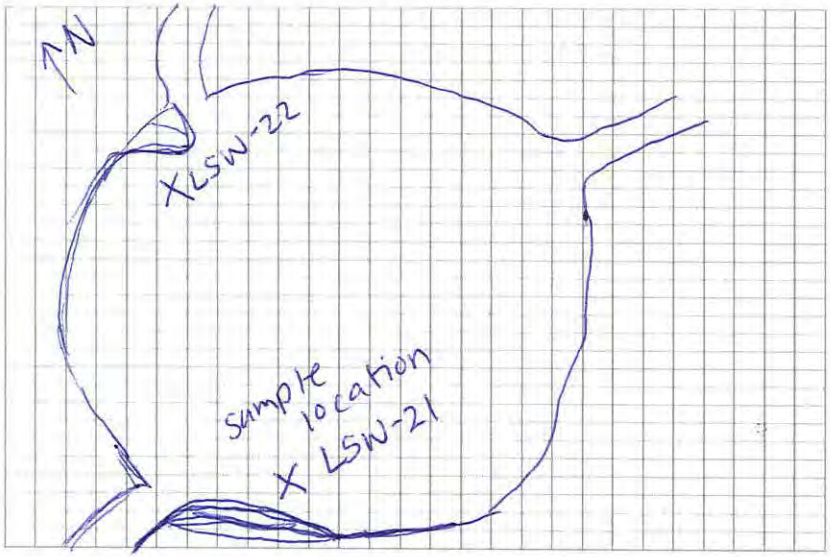
Collection Time: 1500

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
Clay w/ some loam, dark brown/black, semi dense, low plasticity, moist, fine grain, sub-angular

Surface Water Parameters:

Temperature: 10.4 °C pH: 8.0 Conductivity: 630.5 ms/cm TDS: X ppm ORP: ~~163~~ 24.7 mv Turbidity: 5.19 ntu DO 12.85 mL

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	~~Hardness~~	SVOCS
Ponar	SW/SED Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved) SW	TOC
	SW/SED Metals (Total)	TPH
~~Pump~~	ORP	TSS
Dipper	PCBs	VOCs DOCs SW

Notes/Comments: 3 ft water depth
duplicate for SW TM, DM, + Hex chrome
duplicate for SED TM, hex chrome

Recorded By: Miriam Magana

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Date: 1-13-2020

Sediment and Surface Water Collection Field Form

Exposure Area: LSW/LSED - 22

GPS Coordinates:

Lat: —

Long: —

Sampling Personnel: Jason Strup, B.T., D.S.

Sample Date: 1/13/2020

Weather Conditions: 49°F, cloudy

Surface Water ID: LSW - 22

Collection Time: 11:10

Sediment ID: LSED - 22

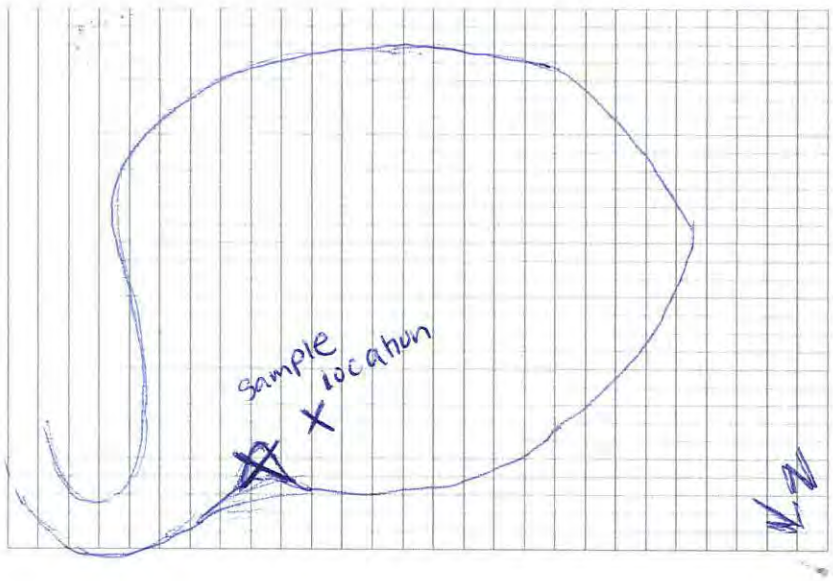
Collection Time: 1215

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
loamy clay, dark brown/black, non-dense, non-plastic, moist, fine sub angular,

Surface Water Parameters:

Temperature: 10.5 °C pH: 7.22 Conductivity: 659.4 ~~ms~~ mS/cm TDS: ~~____~~ ppm ORP: 48.9 mv Turbidity: 5.79 ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:		
Geoprobe	AVS/SEM	PFCs	Alkalinity SW
Slide Hammer Probe	Cyanide	pH	DOCs SW
Scoop	Hardness SW	SVOCS	
Ponar	SW/SED Hexavalent Chromium	TDS SW	
Core Sampler	Metals (Dissolved) SW	TOC SW	
	SW/SED Metals (Total)	TPH	
Pump	ORP	TSS SW	
Dipper	PCBs	VOCs	

Notes/Comments: 4ft (sediment) water depth

Recorded By: Miriam Magaña

Lane Plating Works, Inc. Superfund Site
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Date: 14 Jan 2020

Sediment and Surface Water Collection Field Form

Exposure Area: SS-2

Sample Date: 14 Jan 2020

GPS Coordinates:

Weather Conditions: Sunny, Clear, 70°F, No breeze

Lat:

Surface Water ID: —

Long:

Collection Time: —

Sampling Personnel: [illegible] / Bob Barker

Surface Soil ~~Sediment~~ ID: SS-2

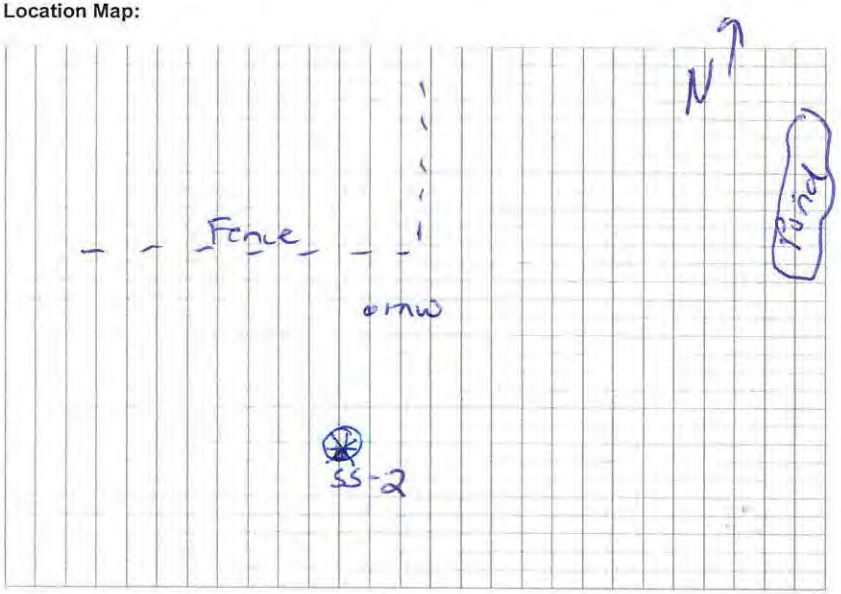
Collection Time: 0-0.5 (1415) 0.5-2 (1416)

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
0-0.5 Bk clay, moist, No odor, organic/roots, No sheen,
0.5-2 Dark Brown clay, moist, No odor, No sheen.

Surface Water Parameters:

Temperature: _____ °C pH: _____ Conductivity: _____ ms/cm TDS: _____ ppm ORP: _____ mv Turbidity: _____ ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
Hand Auger	Metals (Total)	TPH
Pump	ORP TPH	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: [illegible]

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Sediment and Surface Water Collection Field Form

Exposure Area: SS-3

Sample Date: 1-14-2020

GPS Coordinates:

Weather Conditions: Sunny, 68°F, No rain

Lat:

Surface Water ID: —

Long:

Collection Time: —

Sampling Personnel: Jose Flores / Bob Barker

Sediment ID: Surface soil SS-3

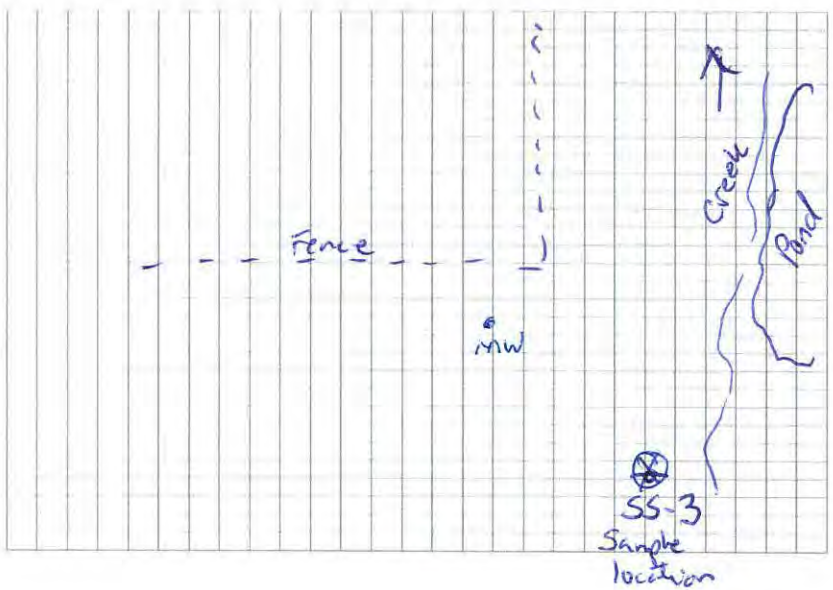
Collection Time: 1243 (0-0.5) ; 1248 (0.5-2 ft)

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
0-6in Brown plastic clay, moist; oil smell; No staining
6in-2 Brown plastic clay, wet; no smell; No staining water in hole

Surface Water Parameters:

Temperature: _____°C **pH:** _____ **Conductivity:** _____ ms/cm **TDS:** _____ ppm **ORP:** _____mv **Turbidity:** _____ntu

Location Map:



Depth (bgs):

Sampling Method:	**Analyses:**	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
Hand Auger	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: Jose Flores

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Date: 2020-Jan 14

Sediment and Surface Water Collection Field Form

Exposure Area: SS-4

Sample Date: 2020 Jan 14

GPS Coordinates:

Weather Conditions: Sunny, clear, 67°F, No rain

Lat:

Surface Water ID: —

Long:

Collection Time: —

Sampling Personnel: [illegible] / Bob Barker

Sediment ID: SS-4

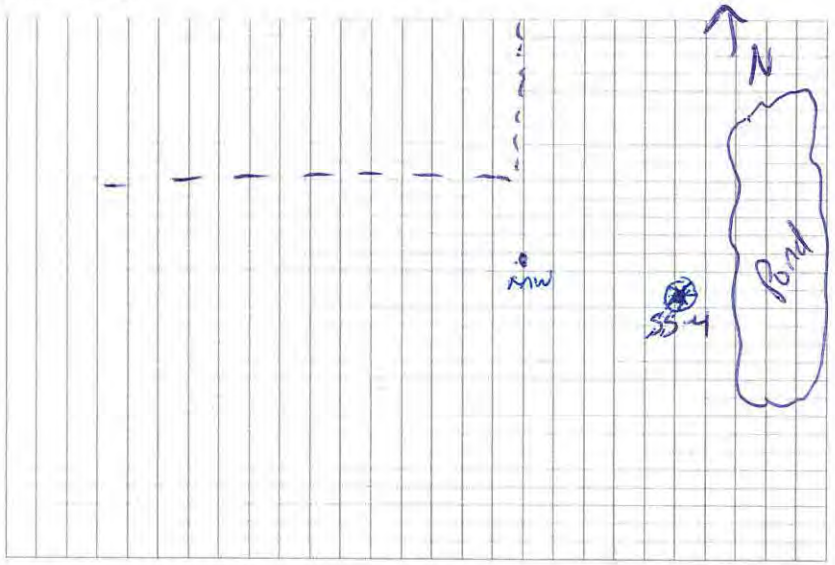
Collection Time: 1308 (0-0.5), 1312 (0.5-2.0)

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
0-0.5in BK highly plastic clay, No odor, Sheen, moist, Organics/roots
0.5in-2ft Bk highly plastic clay, No odor, Sheen, moist, organics/roots

Surface Water Parameters:

Temperature: _____°C pH: _____ Conductivity: _____ ms/cm TDS: _____ ppm ORP: _____mv Turbidity: _____ntu

Location Map:



Depth (bgs):

Sampling Method:
Geoprobe
Slide Hammer Probe
Scoop
Ponar
Core Sampler
Hand auger
Pump
Dipper

Analyses:
AVS/SEM
Cyanide
Hardness
Hexavalent Chromium
Metals (Dissolved)
Metals (Total)
ORP
PCBs
PFCs
pH
SVOCS
TDS
TOC
TPH
TSS
VOCs

Notes/Comments:

Recorded By: [illegible]

Lane Plating Works, Inc. Superfund Site
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Date: 1-14-2020

Sediment and Surface Water Collection Field Form

Exposure Area: SS-5

Sample Date: 1-14-2020

GPS Coordinates:

Weather Conditions: Sunny, clear, 70°F, No breeze

Lat:

Surface Water ID: —

Long:

Collection Time: —

Sampling Personnel: Jose Flores / Bob Barker

Surface soil
Sediment ID: SS-5

Collection Time: 0-0.5 (1502) and 0.5-2.0 ( )

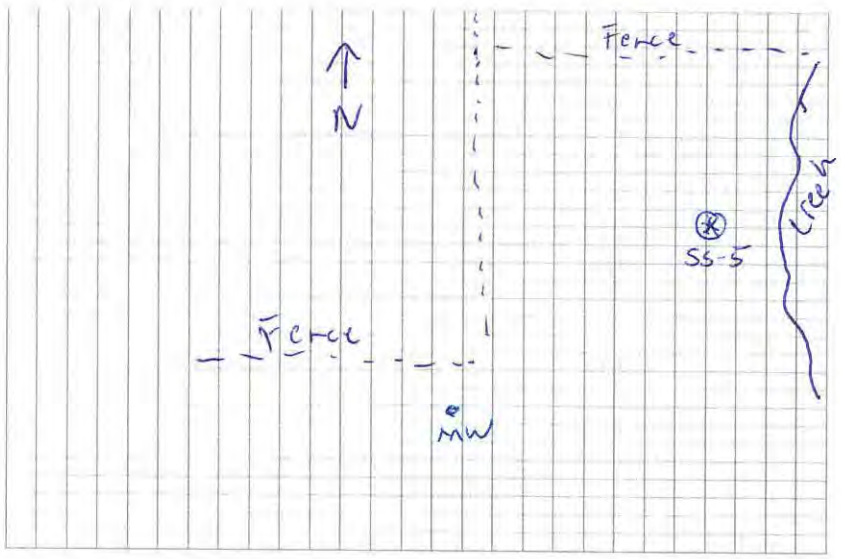
Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):

0-0.5 Dark brown, very moist clay, some organics, No odor
Dark brown, very moist clay, No odor.

Surface Water Parameters:

Temperature: _____ °C pH: _____ Conductivity: _____ ms/cm TDS: _____ ppm ORP: _____ mv Turbidity: _____ ntu

Location Map:



Depth (bgs):

Sampling Method:
- Geoprobe
- Slide Hammer Probe
- Scoop
- Ponar
- Core Sampler
- Hand Auger
- Pump
- Dipper

Analyses:
- AVS/SEM
- Cyanide
- Hardness
- Hexavalent Chromium
- Metals (Dissolved)
- Metals (Total)
- ORP
- PCBs
- PFCs
- pH
- SVOCS
- TDS
- TOC
- TPH
- TSS
- VOCs

Notes/Comments:

Recorded By: Jose Flores

Lane Plating Works, Inc. Superfund Site
Dallas, Dallas County, Texas

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Date: 1-15-20

Sediment and Surface Water Collection Field Form

Exposure Area: SS-8

Sample Date: 1-15-2020

GPS Coordinates:

Lat: —

Long: —

Weather Conditions: Partly Cloudy, 78°F

Surface Water ID: —

Collection Time: —

Sampling Personnel: BB, DS, MM, BT

Sediment ID: SS-8

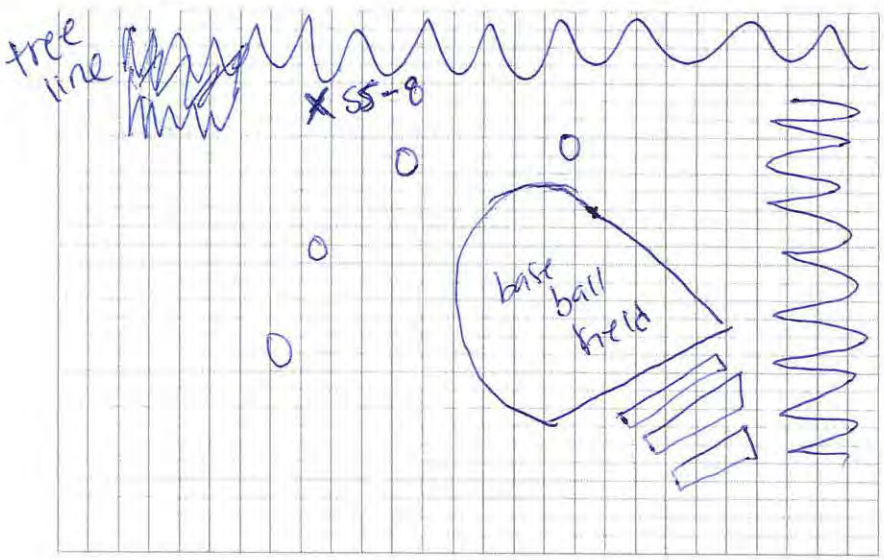
Collection Time:

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
dark brown, low moisture, organics, low density, low - medium plasticity,

Surface Water Parameters:

Temperature: ____ °C pH: ____ Conductivity: ____ ms/cm TDS: ____ ppm ORP: ____ mv Turbidity: ____ ntu

Location Map:



Depth (bgs):

Sampling Method:	Analyses:	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
Scoop	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
Hand Auger	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: Miriam Magaña

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Dallas, Dallas County, Texas

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Date: 1-15-20

Sediment and Surface Water Collection Field Form

Exposure Area: SS-9

Sample Date: 1-15-2020

GPS Coordinates:

Weather Conditions: Partly cloudy, 70°F

Lat: —

Surface Water ID: —

Long: —

Collection Time: —

Sampling Personnel: BB, DS, BT, MM

Sediment ID: SS-9

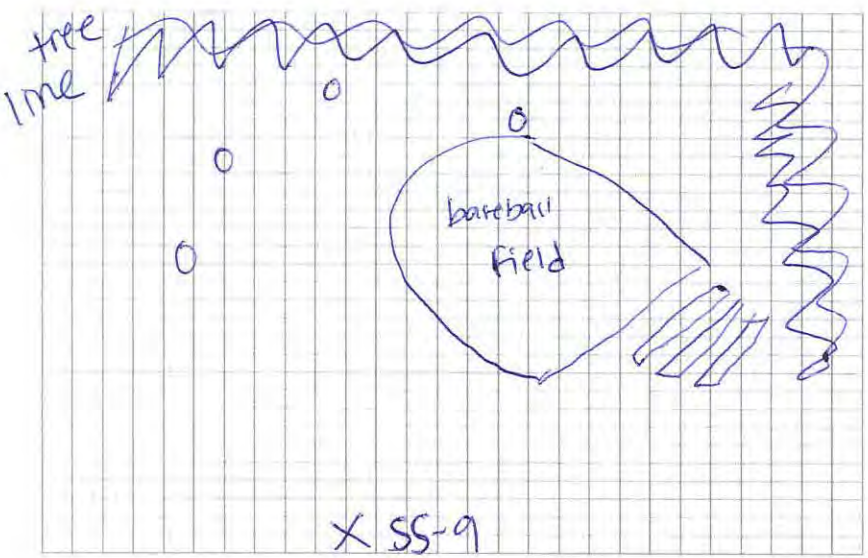
Collection Time: 1450

Sediment Description (soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other):
dark brown, clay, low plasticity, low moisture, dense, no angularity

Surface Water Parameters:

Temperature: ____ °C pH: ____ Conductivity: ____ ms/cm TDS: ____ ppm ORP: ____ mv Turbidity: ____ ntu

Location Map:



Depth (bgs):

Sampling Method:	**Analyses:**	
Geoprobe	AVS/SEM	PFCs
Slide Hammer Probe	Cyanide	pH
~~Scoop~~ MM	Hardness	SVOCS
Ponar	Hexavalent Chromium	TDS
Core Sampler	Metals (Dissolved)	TOC
Hand Auger	Metals (Total)	TPH
Pump	ORP	TSS
Dipper	PCBs	VOCs

Notes/Comments:

Recorded By: Miriam Magaña

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: ACMW-01	Date: 1-15-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY 10YR 3/2-2/1						
		sft-md stff, plastic, moist, vr slk						
		TRASH/debris (broken glass, metal/plast, fill ground)						
5		Clay, silty 10YR 5/2, 6/3 wht calc						
		md stff - sm stff, plastic, moist-dry, silty/vfn sand						
10		CLAY, slty-sndy (bf) 10YR 6/6, gry as above, sm 5/6						
		md stff-stff, plastic, moist-v moist (11-11.3) silty						
15		Refusal/TD @ 12' @ 11.3 Δ to hard, dry, flky/fissile						
		TD @ 12' (Refusal)						
20		(PFAs (0'-12') 1/20: set 8" PVC casing (13') in 10" boring. (threaded PVC)						
		12'-30' chalk/Marl (to 13' bgs)						
		TD @ 30'						
25		hole open to 27'						
		20' Riser						
30		10' screen (17'-27')						
		sand to 15'						
		Bent to 3'						
		flush						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: ACMW-02	Date: 10-19-2020	Logged By: MKilly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-1 Concrete & Fill sand						
5		CLAY 10YR 3/1, 4/2, sm 5/8, black specks, yr wht calc silty, tr vfm sand c sxtr, plastic, moist, dry, Abdnt wht nodules, fn-med, & black specks						
10		CLAY/ 10YR 7/2-7/4 med stiff, plastic, moist, silty, sm wht calc nod (gravel up to) moist above 12'/12.5'						
15		Refusal @ 12.5' 8/20: Set 13 ft 8" PVC in 10" boring. (threaded PVC) (to ~13.5' bgs)						
20		12.5-30' Chalk (Man)						
25		TD @ 30'; hole open to 26' bgs						
30		10' screen (16'-26') 20' Riser Sand to 14' Bent to 3' Flush						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: ACMW-03	Date: 1-15-2020	Logged By: MKelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-0.5 10YR 3/3 silt, plastic, moist, silty } topsoil 0						
		0.5-2 10YR 4/2						
		2-4 weathered Marl/Chalk; dry, crumbly, flaky 10YR 8/1 weathered & indurated 2						
5		4-6 Hard, brittle, flaky, DRY 6						
10		TD/Refusal 6ft 09/20: set 5ft 8" PVC in 10" boring (to 5' bgs)						
		Drill out grout w/ 6" HSA; drill to 20' (into Austin Chalk)						
15		Stop @ 20' & set well.						
		Caves in to 15'.						
20		Set 5' screen, 10' Riser						
		Top Sand @ 8'; Bentonite to 2'.						
		6'-~~18~~ 20' 10YR 4/3 (First loose cuttings)						
		→ Kau: Chalk/Marl. (10') N 5/ gray (Rock Jags)						
		Hard, massive, dry, silty.						
		(15') 5Y 7/1 - 4/1						
		(20') saa						
		stickup w/ bollards						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: ACMW-04	Date: 1-15-2020	Logged By: M Kelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-1 conc & fill sand 1-2 Clay 10YR 2/1 stiff, plastic, moist-dry, little-no silt						
5		Clay 10YR-7.5YR 3/2 stiff, plastic, moist-dry, little-no silt ~6/7' becomes silty, yellow 10YR 4/4 sm s/a, black specks						
10		stiff-hard, plastic, dry-v.d/moist, silty [@10': sag 10YR 4/4] 8-12 Clay/Silty Clay 10YR 6/4, 7/2 med stiff-stiff, plastic, moist, silty-v silty						
15		Refusal @ 15' 12-15 Silty Clay 10YR 7/2, 7/6-6/6 stiff-sm med stiff, plastic, moist-v moist (wt ~~14.45~~ 14.05) sm predom clay/silty clay zones. overall silty clay, moist stiff						
20		12/20: Set 15ft 8" extended PVC in 10" boring (to ~15.5ft bgs)						
25		15'-30' Chalk/Marl						
30		TD @ 30'; hole open to 29'						
		20' Risen (0-19') 10' screen (19'-29') sand to 17' Bent. to 3' Flush						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
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Project Number: 14342168 - B - 3

Boring/Well ID: MW-04	Date: 1-13-2020	Logged By: MKilly	
Depth of Boring: 15'	Boring Diameter: 6"	Drilling Co.: Sunbelt Const.	
Length of Riser: 5'	Casing Diameter: 2"	Driller: Juan Ramon Alcala	
Length of Screen: 10'	Slot Size: 0.010"	Rig: Geoprobe 7822 DT	
Riser/Screen Material: PVC ~~0.010~~	Filter Pack: 20/40	Bit: drive shoe	
Sampling Method: Plastic Liners		Drilling Method: DPT	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		Clay 10YR 3/2	0-0.5	NA				
		sft, plastic, mst, tr wht calc	0.5-2.0					
5		saa, sl sft-mod stiff 10YR 3/2	2.0-5.0					
			5.0-10					
10		CLAY 10YR 6/2, 8/1, 6/8 sft-mod stiff, mst-sm wht hi plastic, sl slky mst-wet ~9= 13/13.5						
15		@~14' Air from site dry (Gy) to dry slky (slshly orange 10YR 5/1-4/1 w/ sm 8/1 tr-sm 6/8	10?13-15					
		Refusal @ 15' sft-mod stiff, plastic mst-dry Becoming hard, slshly (Flaky (sl fissile). Hgry						
20		5' Riser, 10' Screen (0.010" slots)						
25		1 centralizer top of screen 20/40 Sand to ~~Sink~~ to 3'						
30		Bentonite 3'-2'						
		Stickup						

9'

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
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Project Number: 14342168 - B - 3

Boring/Well ID: MW-05	Date: 1-13-2020	Logged By: MKelly	▼ Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY 7.5YR 3/1 (-3/2) med silt - stiff, plastic, mst, little-no silt						
5		CLAY 7.5YR 4/1 stiff - med stiff ; wet @ ~7' brown-gray						
7		CLAY 2.5Y 6/1 stiff, most-wet, plastic						
10		getting hard @ 8.6' (dry, yellow - pale brown, v shaly, flky)						
		Refusal @ 10' shaly Clay 2.5Y 7/3, 7/1 hard, brittle, DRY, flky/fissile						
15		~~Refusal @ 14'~~ MK Refusal @ 10'						
20		Clay 0-5 7.5YR 3/1 (-3/2)						
		5-6.5 7.5YR 4/1						
25		6.5-8.6 sand + shale to 2.5Y 6/1						
		8.6-10 dry shaly 2.5Y 7/3, 7/1						
		2" PVC						
30		5ft x Riser						
		5ft screen (0.010" slots)						
		20/40 Sand to 3ft						
		Bent. 3-2ft						
		stickup (~3ft)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: MW-06	Date: 1-14-2020	Logged By: MKelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-0.5 topsoil & Fill/debris (angular gravel) (6"-8") 10YR 5/4 brown 5/4-8/6						
		stiff, plastic, moist, sm firm CLAY 7.5YR 2.5/2						
5		mod stiff-stiff, plastic, moist-dry CLAY, 7.5YR 3/1-3/2						
		mod stiff, plastic, moist, little-no silt CLAY 7.5YR 4/1						
10		sag						
		-11' stiff-mod stiff, plastic, 10YR 4/1 moist-v moist						
15		CLAY mod stiff, plastic 10YR 4/1 predom 7/4, sm 4/1 & 7/1 moist-sm wet zones 16-17						
20		-19' Marl/Chalk / Shaly LS-Lmy SH Hard, brittle, blocky, DRY 10YR 7/3-7/4						
		TD @ 20' (Hard Fm @ 19')						
25		5' Riser 15' Screen 0.010" slots						
30		20/40 Sand						
		* TO sample 17'-19' *						
		Stick Up Well						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: MW-07	Date: 1-14-2021	Logged By: MKelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY 7.5YR 3/1						
		mod stiff, plastic, moist ~~tit~~ trace Silt, tr Hem (v fn) 2.5YR ~~3/6~~ 4/6						
		~~CLAY~~ ~~10YR 2/1~~						
5		CLAY 10YR 2/1						
		mod stiff-stiff, plastic, moist, trace Silt/vfn Sand						
10		CLAY 10YR 7/1, 6/8, sm black streks						
		stiff-hard, plastic, moist-dry, wet 11.5-11.7						
		@12' vhrd/brittle, DAY, shaly/fissile Marl/Shly LS-Lmy Slt						
15		12-14 same						
		Refusal @ 14' w DPT						
20		Auger to 15' & set well						
		5' Riser						
		10' screen 0.010" slots						
25		20/40 Sand						
		1 centralizer top of screen						
30		top sand ~~2'~~ 3'						
		Bentonite chips 3'-2'						
		TD w/stickup 18.02' toc						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: MW-08	Date: 1-16-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		(topsoil) 0-0.5 10YR 3/3 CLAY. soft, plastic, moist-dry, silty.						
		0.5-2.0 10YR 4/2 sand						
		2-4: weathered Chalk/Marl. 10YR 8/1. med soft-stiff, blocky, DRY						
5		4-6: Chalk/Marl: Hard, brittle Flaky/Fissile, DRY.						
		TD/Refusal @ 5.5 ft BGS						
10								
		set well 2" PVC						
		5' Riser (+1.5' to -3.5')						
		2.5' screen (0.010" slots) (3.5' to 6')						
		Top Sand 3' 20/40 Sand						
		Bentonite 3'-1'						
		stickup						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: MW-09	Date: 1-15-2020	Logged By: MLally	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-1 Conc/Fill sand (loose, Fn-med, sm crse, mnst-wet)						
		1-4 Black Clay; med stiff, plastic, moist, little-no sd/sand						
5								
		(4) CLAY: 10YR 3/3-4/2 sl silty med stiff, moist						
10								
		~7 Aing from brown to yellow 10YR 6/4-6/6, sm 5/8 w/black						
		(9) Hard dry brittle ~9' sm black Red specks (Hem?)						
15		Refusal @ 12.5'						
		(8) 10YR 5/6, 7/4						
20		CLAY, SILTY, med stiff, sm silt, plastic, moist, silty						
		(12) 10YR 7/3, 7/4, sm black specks, tr Hem nodules						
25								
		Refusal @ 12.5 (Hard fm 12-12.5; Hard, dry						
30								
		Screen 5'-12.5'						
		Riser 0-5'						
		top sand 3' (?)						
		Flush						

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		Site: Lane Plating Works, Inc. Superfund Site
		Location: Dallas, Dallas Co., Texas
		Project Number: 14342168 - B - 3

Boring/Well ID: MW-10	Date: 1-16-2020	Logged By: MKelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2: Clay/topsoil. 10YR 2/1. Med. stiff, plastic, moist, trace wlt little-no silt.						
		2-5: Clay. 7.5YR 3/1-3/2, some 5/6. Med stiff-stiff, plastic, moist-dry, little-no silt.						
5		5-9: Clay 10YR 4/4. Stiff, plastic, moist-dry, silty.						
10		9-10: Silty Clay (Silty/Sandy Clay) 10YR 4/4-4/6. Soft-med stiff, med plastic, dry-sl moist, silty-v silty.						
		10-17.6: Sand. silt/sandy, abdt fine-some medium, trace coarse/fine gravel, trace gypsum subang, PSR 10, moist-wet						
15		17.6-18: Chalk/limest. 10YR 6/2. Hard, brittle, flaky/sl fiss, dry.						
20		Refusal @ 18'						
25								
30		Screen 8-18' Riser to 0' (flush) top sand 6'						

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		Site: Lane Plating Works, Inc. Superfund Site
		Location: Dallas, Dallas Co., Texas
		Project Number: 14342168 - B - 3

Boring/Well ID: JSB-5	Date: 1-16-2020	Logged By: MKelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2: CLAY/Topsoil. 7.5YR 3/2, Soft-med stiff, plastic, moist trace v sl silty, trace wlit Calc nodules. Some fill grade @ surface.						
		2-4 CLAY						
5		4-8 CLAY, ~~Some M~~ 7.5YR 4/3. Very stiff-hard, plastic, sl mst-dry, little-no silt 5YR 4/4, some 10YR 8/6 (more silt w/ depth).						
		8-12: CLAY. Stiff-some med stiff, plastic, dry-sl m.						
10		10YR 5/4 very silty-less w/ depth. 7.5YR 6/4 - [Lower A @ 11']						
		~~12-15 CLAY. 10YR 7/3.~~ Med stiff-stiff, sticky, dry-v sl mst.						
15		TD @ 15' (NVT Refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-6	Date: 1-16-2020	Logged By: Mkelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2: 7.5YR 3/3. CLAY/Topsoil, soft-med stiff, plastic, moist-dry, trace sand, gravel @ surface.						
		7.5YR 4/3 med stiff, plastic, moist-dry.						
5								
		7.5YR 4/4. Med stiff, plastic, moist-dry						
10		10YR 7/4, 7.5YR 4/4. soft-med stiff, sl silty/sandy.						
		10YR 6/4 dry-moist, plastic						
		10YR 7/3. med stiff-soft, moist-very moist/sl sand, silty						
15		TD @ 15' (NOT Refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-7	Date: 1-13-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

▼ Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2: Clay 10YR 3/2 stiff - stiff, plastic, moist, little-no ~~plastic~~ silt/sand	0-0.5 0.5-2.0					
5		CLAY. stiff-mod stiff, plastic, moist, little-no silt no sand 10YR 4/1 trace 4/6 10YR 3/1	2-5					
8 10 12		CLAY stiff, plastic 10YR 4/1 sag w/sm 5/8 streaks + wht calc (vfm-fn)	5-10					
15		10YR 5/1, streaks as above + black sm wht calc.	10-15					
		TD @ 15' (NOT refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-8	Date: 1-13-2020	Logged By: MKelly	▼ Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		Clay sft-stiff, plastic, moist 10YR 3/1						
5		sft-mdstiff, plastic, moist-v moist						
▽ ~8' 10		mdstiff, plastic, moist 2.5Y 4/1; some wet ~7' (stiff below)						
15		CLAY stiff, plastic, moist (NOT wet) 10YR 5/1 sm 6/8 strks + wht CaCO3 nod. cmblack strks TD @ 15' (NOT refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-9	Date: 1-14-2020	Logged By: MKelly	▼ Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		Clay 10YR 3/2, 2/2 mod stiff, plast, mst						
		10YR 2/2-3/2						
5		mod stiff-stiff, plast, mst-dry 10YR 6/3-6/4						
		sand w/ sm 6/6						
10		Becoming silty clay (slt/vfSnd) 10YR 7/2, 6/6 stiff-mod stiff mst-vmst/slwet w/plast; some silt, tr cse-grnd snd? conc. 10YR 6/4						
15		Refusal/TD @ 14'						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-10	Date: 1-14-2020	Logged By: MKelly	▼ Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY 10YR 3/2-3/2 med stiff, plastic, dry-moist, silty						
5		Clay, sl silty 10YR 7/1, 5YR (6/4 mixed) stiff-med stiff, plast, moist (wet 6'-6.75') sm calc nod Δ to silty/sandy/v lt gray						
10		Silty Clay 10YR 7/2 tr sand, med stiff, variably-wet, med plast @~12.6': Hard/dry shaly LS/Lmy Slt						
15		Refusal @13'						
		* stuff above 12'-13' sample: med sand, clayey, wet, loose, FWSR Tp, subang-sb Rdd (tr coarse?) *						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: JSB-11	Date: 1-15-2020	Logged By: MKelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-0.25 asphalt + fill sand (10YR 4/6-5/6) loose, fn-rose, mst, tr grvl fn						
		0.25-2.0 CLAY, 10YR 7/1, stiff, plastic, moist, little no silt/sand.						
		2-4 10YR 4/2 sag						
		4-6 2.5Y 4/1 sag, v sl silty mst-dry						
5		@~6' becomes silty sag, SILTY						
		6-8 5Y 7/1-8/1, sm 10YR 5/8 stiff, dry, silty						
		8-10 2.5Y 5/2, 7/1 silty						
10		10-12 2.5Y 7/2-7/3, 8/3 stiff-mod stiff, plastic, dry-mst; sm v mst, sl stiff mst-wet 11-12						
		12-13 2.5Y 7/2-7/3 Mod, dry, brittle, flky						
15		TD/Refusal @ 13'						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BSB-1	Date: 1-20-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2: Silty Clay, 10YR 4/2-4/3. Med stiff-soft, plastic, mst-dry, silty, trace wht calc nod.						
		Clay 10YR 3/2. Med stiff-stiff, plastic, mst-dry, silty						
5		4-8: Clay. 10YR 3/1. saa						
		8-12: Clay/silty. 10YR 4/2, 3/2, some 5/6. Very stiff, plastic, moist-dry, silty.						
10		some black streaks!						
		12-15: Clay. 10YR 4/1, 5/3-5/1, some 5/6.						
15		very stiff, plastic, moist-dry, silty, sm wht calc						
		TD @ 15' (Not Refusal).						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BSB-2	Date: 1-21-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		Clay/topsoil. 10YR 3/3-3/4, Med stiff, plastic, moist, silty,						
5		Clay/Silty Clay, 10YR 3/1 ;@ 6-5 Δ to 5/2, medium stiff, plastic, moist-dry, silty-sm v silty,						
10		Clay/Silty Clay, 10YR 7/1, 4/8(-6/6), tr wht calc, sm blck streaks, Med stiff, plastic, silty (+Gyp?)						
15		Clay, 10YR 6/3, 5/6, tr wht calc + blck streaks (+gyp?) Med stiff, plastic (gummy), sl silty-no silt,						
		Stop@ 15' / NOT Refusal						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BSB-3	Date: 1-20-2020	Logged By: M Kelly	▼ Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order; soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-0.5: Clay/Topsoil: 10YR 3/3. Soft-med stiff, plast, moist-dry, silty.						
		0.5-2.0 " 7.5YR 3/3-4/2. sag, tr white calc nod.						
5								
		8-12: Clay/Silty Clay. 10YR 5/2, 5/4-5/6. Med stiff - soft, plastic, moist, silty-vslty/vFn sandy.						
10		12-15: Clay/Silty Clay. 10YR 6/3 mx 5/4. soft-med stiff, v. High plastic, moist-wet, silty-vslty, wh't calc nod/sl sandy						
15								
		TD @ 15' (NOT Refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: RSB-4	Date: 1-21-2020	Logged By: M. Kelly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY, 10YR 3/3 - 3/2, Med. stiff, plastic, moist, silty. (Clay/Silty Clay).						
5		CLAY, Med. stiff, plastic, sl mst-dry, silty.						
10		CLAY/Silty Clay, 10YR 4/1, abdt. 5YR, tr wht calc, Med. stiff, plastic, sl moist-dry, silt						
15		Clay/Silty Clay, 10YR 4/1, tr 5YR, blck strks, sm wht calc, Med. stiff, plastic, sl mst-dry, silty.						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BGB-5	Date: 1-21-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY/Topsoil. 10YR 4/3. Med stiff, plastic, sl moist, silty/sandy (some fn), wht calc nodules.						
5								
10		CLAY: 10YR 5/2, sm 5/8, tr wht, blck, Med stiff, plastic, mst-dry, sl silty.						
		Clay. 10YR 5/3, 5/4, sm 5/8, tr black stnks, Med stiff, plastic, mst-dry, sl silty						
15		TD @ 15' (NOT Refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BSB-6	Date: 1-20-2020	Logged By: MKilly	Water Level
Depth of Boring:	Boring Diameter:	Drilling Co.:	Concrete
Length of Riser:	Casing Diameter:	Driller:	Grout
Length of Screen:	Slot Size:	Rig:	Bentonite
Riser/Screen Material:	Filter Pack:	Bit:	Filter Pack
Sampling Method:		Drilling Method:	Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		0-2: Clay / sl. silty. 10YR 4/2. Mod stiff, plastic, moist, sl silty.						
5		Clay. silty 10YR 3/2. Mod stiff - sl stiff, plast, mst-dry, sl/y-v sl/y.						
10		8-12: Clay. 10YR 5/1, sm 5/6, sm blck strks. very stiff, plast, mst-dry, sl silty.						
15		12-15: Clay. 10YR 4/1 ~~5/1~~ 5/1, stiff, plastic, moist-dry, sl silty, tr calc. nod.						
		TD @ 15' (NOT Refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BSB-7	Date: 1-21-2020	Logged By: Mikelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		Clay/Silty Clay. 10YR 3/2. soft-med stiff, plastic, moist, silty, - v silty,						
5		Clay - 10YR 3/1. Med. stiff, plastic, mst-dry, sl silty.						
10		CLAY 10YR 3/1 -3/2 sm 5/6 streaks. @ 9.5' Δ to ~~3/2~~ 10YR 5/2-5/3 sm 7.5YR 4/6 streaks +a wht calc v+n Med stiff, plastic, sl mst-dry, slty, sm wht calc (+n)						
15		12-15: CLAY. 10YR 6/1, sm 5/8, +a wht calc. 4/1 -3/1 Med stiff, - stiff, plastic, vsl mst-dry						
		TD 15' (NOT Refusal)						

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RECORD OF SUBSURFACE EXPLORATION

Site: Lane Plating Works, Inc. Superfund Site
Location: Dallas, Dallas Co., Texas
Project Number: 14342168 - B - 3

Boring/Well ID: BSB-8	Date: 1-21-2020	Logged By: MKelly	
Depth of Boring:	Boring Diameter:	Drilling Co.:	
Length of Riser:	Casing Diameter:	Driller:	
Length of Screen:	Slot Size:	Rig:	
Riser/Screen Material:	Filter Pack:	Bit:	
Sampling Method:		Drilling Method:	

Water Level
Concrete
Grout
Bentonite
Filter Pack
Well Screen

Depth (Feet)	USCS	SOIL / ROCK DESCRIPTION (Order: soil type, color, density/consistency, plasticity, moisture, grain size, angularity/mineralogy, other)	SAMPLE ID	PID (ppm)	PID (ppb)	WELL COMPLETION annulus	casing	annulus
0		CLAY: 10YR 3/2. Soft-med. stiff, moist, sl. silty, trace vfn wht calc. nodules. plastic.						
5		CLAY: 10YR 4/1-3/1, trace 4/6. Stiff, moist, dry, plastic, sl. silty.						
10		CLAY: 10YR 4/1, some 5/8. Stiff-v stiff, plastic, dry, (Silty Clay) sl silty, 'gummy', tr wht calc, smblck strks.						
		Clay/Silty Clay. 10YR 5/2, 5/3, sm 5/8. SAA.						
15		TD @ 15' (NOT Refusal)						

Phase 2
RI Field Activities
(February 2020)

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ALL-WEATHER
ENVIRONMENTAL FIELD BOOK
Numbered Pages

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Phone 972-315-3922

Project Lone Plating Works, Superfund Site.
5322 Bonnie View Rd, Dallas, Tx 75241

Logbook #1

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Location Dallas, Dallas County, TX Date 03 Feb 2020

Project / Client Lane Plating / EPA 6

AB / JS Low-Flow MWs

0800 ABugher, JStrapp, TNickerson, JFlores, MMagaña
Teams: AB/JS (T2) JF/TN (Team 1)
Scribe: MM
HBS Tailgate, PFAS instructing

0940 Calibrate YSI (Both teams)
1st C1127, JF/TN
Temp = 16.80°C, pH = 3.97
ORP = 320 mV, mS/cm = 4.44
2nd SDFLLJPT2, AB/JS
Temp = 15.98°C, pH = 4.23
ORP = 348, mS/cm = 4.64
- Started to setup at WW-2, decided to start with ACMW-01.
- EB-20200203-GW-1, Equipment Blank for PFAS off of bailer.
- Checked DTW @ ACMW-01, 8.5' BTOC. will Low-Flow, + will not submit EB

1109 Begin Purging ACMW-01, WL = 8.50

1135 Sample time ACMW-01, TM/DM/Hex/PFAS
- NO Field or Lab QC

1250 EB-20200203 PFAS, tubing

AB 03 Feb 2020

Location Dallas, Dallas County, TX Date 03 Feb 2020

Project / Client Lane Plating / EPA 6

AB / JS Low-Flow MWs

1318 Start purging ACMW-02, WL 6.49

1340 Sample time ACMW-02,
- TM / DM / Hex / PFAS
- NO Field QC (Dup) or Lab QC

1500 Start purging ACMW-04, WL = 9.42

1535 Sample time ACMW-04
- TM / DM / Hex / PFAS
- NO Lab QC, YES Duplicate ACMW-04-D / ACMW-04-F-D for all analyses
A pH = 9.71
Collected Hex w/ preservative (Ahmed)
- Pack EPA cooler / Secure site
Depart, return 04 Feb 2020 @ 0800

AB 03-Feb-2020

Rite in the Rain

Location Dallas, Dallas Co, TX Date 04-Feb-2020

Project / Client Lane Plating

AD/JS GW-Low-Flow

0800 AB/JS/MA/JF/TN on site
H&S Tailgate
Calibration on YSI, other logbook
0850 Prep. for Low-Flow (FB-20200204-GW)
0935 Start Purging MW-01, WL = 5.68'
1000 Sample time MW-01
TM/DM/Hex/PFAS, no Field/Lab QC
1104 Start Purging MW-09, WL = 6.98
Dup collected all analyses
1125 Sample time MW-09, MW-09-D
TM/DM/Hex/PFAS
Start Purging MW-10, WL = 9.82'
1305 Sample time MW-10 TM/DM/Hex/PFAS
1432 Start Purging WW-02, WL = 13.62'
1455 Sample Time, WW-02
TM/DM/Hex/PFAS no QC
1548 Start Purging WW-01, WL 14.15'
1615 Sample time WW-01
TM/DM/Hex/PFAS
Pack coolers / Depart

AB 4-Feb-2020

Location Dallas, Dallas Co, TX Date 3/3/2020

Project / Client Lane Plating / EPA 6

Jason Strong (JAS) & Jack Schwartz (JFS)

Well Survey and gauging water levels.
0915 on site JAS & JFS
1025 Health & Safety review
1030 setup survey equipment
1102 arrive at first well location for survey and gauging see following page and data sheet for more information
1430 finish surveying and gauging see following page for water level and well information; also information JAS.
1435 walk to creek just below site to check for water @ possible surface water locations the creek was still dry.
1500 depart site for office

3/3/2020

Rite in the Rain

Location Dallas, Dallas Co, TX Date 2-3-2020

Project / Client Lone Plating / EPA Region VI

0645 Mobilization.
0700 En route from office to site
0750 Arrived on site.
0800 ~~Sample manager~~ Aaron Bugher (AB)
Low Flow: Team 1 Jose Flores (JF)
Todd Nickerson (TN) Team 2
Jason Stroup (JS) and Aaron Bugher.
Sample Manager/Scribe Miriam Magana (MM).
Safety meeting conducted by AB
0940 Both water quality meters calibrated. Information in log book #1.
0945 Mobilization of supplies for low flow sample collections. General analysis and PFAS analysis.

Jose Flores 2-3-2020

Location Dallas, Dallas Date 2-3-2020

Project / Client Lone Plating

Low Flow Sampling

10.05 Arrived at MW-02. (Low Flow)
1023 Setup complete. See field data
1024 First water.
1029 Started parameter readings.
1050 Sample time for MW-2
1113 Demobe to decon water level.
1141 Arrived MW-03. (Low Flow)
1150 Setup complete.
1151 Pump on
1154 Started parameter readings
See field data sheet for more information
1217 Sample time for MW-03.
MS/MSD location.
Slow recharging well.
1311 Sampling complete
1317 Demobe from location to decon water level.
1325 Lunch
1415 Setup at MW-04 (Low Flow)
1444 Pump on.
1452 Started parameter reading
See field data sheet for more information

Jose Flores 2-3-2020

Rite in the Rain

Location Dallas, Dallas Co Date 2-3-2020

Project / Client Lane Plating

Low Flow Sampling

1516 Last reading.
1520 Sample time for MW-04.
1534 Demobe from MW-04.
1645 Off site.
1750 Arrived at FedEx
1815 Arrived at office.
1830 End of Day

Joe Flores 2-3-2020

Location Dallas, Dallas Co Date 2-4-2020

Project / Client Lane Plating

Low Flow Sampling

0645 mobilization
0700 En route from office to site
0800 Arrived at site
0815 Safety meeting
0830 Calibration check - Unit C1127
18.67°C ; 4.02 pH ; 269 ORP mV ; 4.45 mS/cm
0.0 NTU ; 7.06 mg/L DO
0838
Calibration for unit SBELTJP2. All parameters were calibrated.
0845 Setup at MW-05 (Low flow)
0910 Pump on. See field data sheet for more information.
0938 Sample time for MW-05
1005 Lowered tube 1.5 ft.
1008 Demobe to decon water level
1030 Arrived at MW-06 started setup
1042 Pump on. See field data sheet for more information.
1045 Started readings
1118 Sample time for MW-06

Joe Flores 2-4-2020

Rite in the Rain

Location Dallas, Dallas Co Date 2-4-2020

Project / Client Lane Plating

Low Flow Sampling.

1133 Sampling completed
1136 Demobe to decon water level.
1230 Arrived at MW-07. (Low Flow)
1245 Pump on
See field data sheet for more information.
1318 Sample time for MW-07
1345 Demobe to decon water meter.
1415 Arrived at WW-03 (Cistern). Located on north side of main bldg. Location was dry. 12.10 total depth.
1506 MW-08 Dry 10.05 TOC
ACMW-03 Dry 18.64 TOC
1527 Sample time for ER-1 Collected from tubing weight
1530 Started demobe of conex.
1815 Off site.
1850 Arrived at FedEx to drop off sample coolers.
1715 Arrived at office.

Jose Flores 2-4-2020

Location Date

Project / Client

Rite in the Rain

Location Dallas, Dallas Co Date 2-6-2020

Project / Client Lane Plating

IDW - Sample Collection

0315 mobilization for IDW sample collection and demobilization of connex.

0835 En route 11386

0936 Arrived on site.

0938 Safety meeting. On site Jose Flores and Jason Stroup.

0945 Started cleaning of connex.

1038 Connex cleaned.

1045 Opening up IDW drums. 5 total IDW water drums (Purge and decon water) Also well development water. (4) IDW water drums will be identified as IDW-W-200206-1 and the other (4) IDW water drums will be identified as IDW-W-200206-2

1108 Mobile mini on site to remove Connex

1138 Connex off site

1140 Started sampling of IDW drums

1150 Sample time for IDW-W-200206-1 (4) drums. Composite of 4 drums

1315 Sample time for IDW-W-200206-2 4 drums, Composite sample of 4 drums.

All water samples were composite samples

Jose Flores 2-6-2020

Location Dallas, Dallas Co Date 2-6-2020

Project / Client Lane Plating

IDW - Sample Collection

1325 Started opening soil drums. Soil from drill cuttings / well installation. Total of 14 soil drums

1355 Sample time for IDW-S-200206-1 7 soil drums; composite of drums.

1425 Sample time for IDW-S-200206-2 7 soil drums; composite of drums.

1450 Analysis for both ~~IDW~~ Soil and IDW water

Soil.

Ignitability, moisture, ph ① 125ml glass jar No preservation.

Reactivity ① 125 mL glass jar No preservation

Full TCLP ① 500 mL glass jar No preservation

TCLP VOCs ① 60mL VOA vial No preservation. 10 grams of soil per VOA.

Water

① ~~Ignitability~~, pH 250ml poly NO preservation

② Tx 1005 40mL VOA vials; HCL

① Reactivity 125ml glass; No preservation

③ Full TCLP 1000mL glass Amber; NO preservation.

③ TCLP VOCs 40mL vials; No preservation.

Jose Flores 2-6-2020

Rite in the Rain

Location Dallas, Dallas Co Date 2-6-2020

Project / Client Lane Plating

FDW - Sample collection

0	1510	Started packing coolers
	1540	Off site. 114.59
	1630	Arrived at FedEX to Ship
0		2 coolers to Test America
09	1650	Arrived at office
0	1700	End of day.
0		
10		
10		
110		
113		
115		
115		
131		

2-6-2020

Jon Hayes

Location Date

Project / Client

Rite in the Rain

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 03 Feb 2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: ACMW-01 Sample ID: ACMW-01 (ACMW-01-F) Sample Time: 1135

Casing diameter/type: 2" PVC Sch40
Well location: Lane Plating
Weather: 69°F, Sunny, 12 mph, 54% Humidity
Screened interval(s): 17-27'
Sampling personnel: AB/JS
Total depth: 27'
Sampling method: Low-Flow
Initial depth to water (w/o pump): 8.50'
Water level indicator: Heron 100'
Final depth to water (w/o pump): 17.75'
Water quality meter: YSI Horiba SBFLLJF2
Measuring point: **North side of casing**
Pump depth setting: 22'
Pump type/model: Pegasus Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1109	20.66	2.43	-	8.75	6.22	270	9.59	200	12.6	200	
1112	20.55	2.39	-	8.80	6.48	252	10.10	200	11.1	400	
1115	20.53	2.38	-	8.53	6.64	238	10.87	150	10.1	570	
1118	20.56	2.38	-	8.21	6.71	229	11.49	180	10.0	730	
1121	20.61	2.38	-	7.97	6.78	222	12.00	160	10.0	890	
1124	20.68	2.39	-	7.75	6.86	217	12.40	100	9.7	990	
1127	20.69	2.39	-	7.60	6.90	213	12.88	100	9.4	1090	
1130	20.70	2.40	8.45	7.33	6.94	207	13.12	100	8.6	1190	
1133	20.72	2.41	83.5	7.24	6.93	206	13.54	100	8.4	1290	
											Collected: Total Metals + Hg
											for EPA: Dissolved Metals + Hg
											Collected: Hex Chrome
											for Private: PFAS
											No Field QC / Lab QC

Recorded By: A Bugher

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 03 Feb 2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: ACMW-02 Sample ID: ACMW-02 (ACMW-02-F) Sample Time: 1340

Casing diameter/type: 2" PVC sch40
Well location: Lane Plating
Weather: Drizzle
Screened interval(s): 16-26'
Sampling personnel: AG/JS
Total depth: 26'
Sampling method: Low-Flow
Initial depth to water (w/o pump): 6.49'
Water level indicator: Heron 100'
Final depth to water (w/o pump): 19.08'
Water quality meter: YSI Horiba SBFLLJP2
Measuring point: **North side of casing**
Pump depth setting: 21'
Pump type/model: Peristaltic / Pegasus

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1318	19.84	1.41	31.0	2.71	6.59	163	8.15	200	23.5	200	* EB-20200203 for PFAS
1321	19.97	1.45	9.5	0.82	6.57	63	8.70	200	31.7	400	@
1324	19.96	1.43	3.9	0.33	6.56	42	9.38	180	24.7	580	
1327	19.92	1.47	1.4	0.12	6.56	42	10.03	100	21.5	680	
1330	19.98	1.48	0.1	0.01	6.55	38	10.53	100	17.6	780	
1333	19.87	1.48	0.0	0.00	6.54	34	11.03	100	13.3	880	
1336	19.84	1.48	0.0	0.00	6.54	32	11.43	100	12.5	980	
											Collected • TM+Hg
											for EPA • DM+Hg
											Collected • Hex Chrome
											for Private • PFAS
											No Field or Lab QC
											except Equipment blank PFAS
											on tubing

Recorded By: A Bugher

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2/4/2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: AC MW-03 **Sample ID:** **Sample Time:**

Casing diameter/type: Well location: Weather:

Screened interval(s): Sampling personnel:

Total depth: 18.64 ft btoc Sampling method:

Initial depth to water (w/o pump): Water level indicator:

Final depth to water (w/o pump): Water quality meter: YSI

Measuring point: **North side of casing** Pump depth setting: Pump type/model:

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
											Dry; No Water
											Did not Sample

Recorded By: Jason Stroup

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 03 Feb 2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: ACMW-04 Sample ID: ACMW-04 (ACMW-04-F) Sample Time: 1535

Casing diameter/type:
Well location: Lane Plating
Weather: 68°F, Rain, 10mph, 62%
Screened interval(s): 19-29'
Sampling personnel: AB/JS
Total depth: 29'
Sampling method: Low-Flow
Initial depth to water (w/o pump): 9.42'
Water level indicator: Heron 100'
Final depth to water (w/o pump):
Water quality meter: YSI Horiba SBFLLJPZ
Measuring point: **North side of casing**
Pump depth setting: 24'
Pump type/model: Peristaltic Pegasus

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
15:00	19.47	0.671	81.8	7.28	7.05	219	9.74	160	38.3	160	Planning to collect ACMW-04-FD
15:03	19.61	0.671	78.1	6.94	7.10	214	9.75	250	67.0	410	ACMW-04-D (Duplicate)
15:06	19.69	0.670	72.3	6.41	7.10	211	9.85	250	74.9	660	for TM+Hg/DM+Hg/Hex/PFAS
15:09	19.80	0.625	64.1	5.68	7.62	195	9.91	250	96.0	910	
15:17	19.87	0.614	47.8	4.22	9.82	91	9.93	250	65.6	1160	
15:20	19.91	0.605	44.0	3.88	9.89	80	9.93	250	52.9	1410	
15:23	19.93	0.591	36.5	3.22	9.84	64	9.93	250	32.6	1660	
15:26	19.94	0.569	33.9	2.99	9.77	61	9.93	250	31.0	1910	
15:29	19.95	0.564	32.7	2.88	9.74	60	9.92	250	30.6	2160	
15:31	19.97	0.551	30.5	2.69	9.71	59	9.94	250	28.5	2410	
											☆ Hex Chrome Collected with High pH, estimated pH after preservative is

Recorded By: ABughes

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 04-Feb-2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-01 Sample ID: MW-01 (MW-01-F) Sample Time: 1000

Casing diameter/type: 2" PVC Sch 40
Well location: Lane Plating
Weather: Cloudy, 60°F, windy
Screened interval(s): 4.5-12'
Sampling personnel: AB/JS
Total depth: 12'
Sampling method: Low-Flow
Initial depth to water (w/o pump): 5.68'
Water level indicator: Heron 100'
Final depth to water (w/o pump):
Water quality meter: YSI Horiba SBFCLSP2
Measuring point: **North side of casing**
Pump depth setting: 10'
Pump type/model: Peristaltic Pegasus

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
0935	15.67	1.03	90.8	8.44	6.54	265	5.96	200	47.1	200	
0938	15.73	1.04	44.0	4.16	6.55	262	6.03	200	80.2	400	
0941	15.84	1.04	33.8	3.23	6.58	261	6.08	200	96.7	600	
0944	15.80	1.04	26.4	2.52	6.52	261	6.12	200	77.8	800	
0947	15.79	1.04	19.1	1.82	6.49	261	6.15	200	74.8	1000	
0950	15.66	1.04	15.8	1.51	6.48	262	6.17	200	68.1	1200	
0953	15.75	1.04	13.0	1.24	6.47	262	6.19	200	63.9	1400	
0956	15.80	1.04	12.2	1.18	6.46	262	6.21	200	61.0	1600	
											Collected : TM+Hg
											for EPA : DM+Hg
											Collected : Hex Chrome
											for Private : PFAS
											NO field or Lab QC

Recorded By: A Bugher

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2-3-2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-2 Sample ID: — Sample Time: 1050

Casing diameter/type: 2" PVC
Screened interval(s): 4.5 - 12
Total depth: 12
Initial depth to water (w/o pump): 5.38
Final depth to water (w/o pump): 5.44
Measuring point: **North side of casing**

Well location: East property line
Sampling personnel: Jose Flores & Todd Nickerson
Sampling method: Low Flow
Water level indicator: Heron
Water quality meter: Horiba U-52
Pump depth setting: 8.25

Weather: Sunny, Strong breeze SSW, 64°F
Pump type/model: Pegasus Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1023	Pump on										
1029	18.49	0.853	~~2.~~	2.54	6.80	229	5.61	mL/min	0.0	300	Clear; No odor; No particles
1032	18.14	0.832	—	2.11	6.81	362	5.68	mL/min	0.0	300	
1035	18.23	0.816	—	1.93	6.81	345	5.71	mL/min	0.0	300	
1038	18.38	0.812	—	1.80	6.82	397	5.73	mL/min	0.0	300	
1041	18.49	0.812	—	1.70	6.83	417	5.75	mL/min	0.0	300	
1044	18.61	0.812	—	1.68	6.83	431	5.76	mL/min	0.0	270	
1047	18.68	0.811	—	1.59	6.83	444	5.77	mL/min	0.0	270	
											Hexchrome 1 vial + 20 drops
											(1) TAL mtls HNO3 1L poly
											(1) TAL mtls HNO3 Filtered 1L Poly
											(1) Hexchrome NH4 250 mL Poly
											2 PFC 250 mL Poly

Recorded By: Jose Flores

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2-3-2020

Low-Flow Ground Water Sampling Data Sheet

1141

Well ID: MW-03 Sample ID: — Sample Time: 1217

Casing diameter/type: 2" PVC
Screened interval(s): 13-23
Total depth: 23
Initial depth to water (w/o pump): 5.35
Final depth to water (w/o pump): 6.47
Measuring point: **North side of casing**

Well location: Southeast corner of property
Sampling personnel: Jose Flores & Todd Nickerson
Sampling method: Low Flow
Water level indicator: Heron
Water quality meter: ~~YSI~~ Horiba U-52
Pump depth setting: 18.00

Weather: Sunny, Breeze SSW
Pump type/model: Pegasus Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1151	Pump on.										
1154	21.40	1.13	—	5.27	6.72	205	6.34	mL/min	4.20	200 mL	Clear, No odor, No particles
1157	21.02	1.13	—	2.26	6.70	279	6.44	mL/min	2.13	150	
1200	20.85	1.13	—	1.51	6.70	350	6.67	mL/min	1.47	150	
1203	20.80	1.13	—	1.17	6.70	395	6.67	mL/min	1.16	100	
1206	20.79	1.13	—	1.05	6.70	415	6.65	mL/min	1.04	100	
1209	20.67	1.13	—	0.97	6.70	427	6.65	mL/min	0.94	100	
1212	20.48	1.13	—	0.90	6.70	441	6.67	mL/min	0.89	100	
1215	20.36	1.13	—	0.85	6.69	444	6.67	mL/min	0.84	100	
											MS/MSD sample location.
											(2) 1L Poly HNO3 TAL mtls
											(2) 1L Poly HNO3 TAL mtls Filtered
											(3) 250mL Poly NH4 Hexchrome Filtered
						1 vial + 30 drops	9.4				(2) 250mL Poly PFC
						1 vial + 30 drops	9.5				
						1 vial + 30 drops	9.4				

Recorded By: Jose Flores

≈ Stickup 3.30 Approx

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2-3-2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-04 Sample ID: Sample Time: 1520

Casing diameter/type: 2" PVC
Well location: South side of property
Weather: Overcast
Screened interval(s) (5-15 BGS) 8.30 - 18.30 TOC
Sampling personnel: Jose Flores & Todd Nickerson
Total depth: (15 BGS) 18.3 TOC
Sampling method: Low Flow
Initial depth to water (w/o pump): 6.71
Water level indicator: Heron
Final depth to water (w/o pump): 6.85
Water quality meter: Horiba U-52
Measuring point: **North side of casing**
Pump depth setting: 13.30
Pump type/model: Pegasus Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1444	Pump on										
1452	21.65	0.673	—	3.12	7.40	213	6.94	mL/min	~~3.02~~ 0.0	200 mL	Clear; No odor; No particles
1455	21.09	0.675	—	2.21	7.03	233	6.94	mL/min	~~2.19~~ 0.0	180	
1458	20.72	0.674	—	1.99	6.94	242	6.93	mL/min	~~1.99~~ 0.0	180	
1501	20.41	0.675	—	1.88	6.88	250	6.95	mL/min	~~1.81~~ 0.0	180	
1504	20.13	0.676	—	1.65	6.83	255	6.95	mL/min	~~1.66~~ 0.0	180	
1507	19.89	0.678	—	1.53	6.77	259	6.96	mL/min	~~1.59~~ 0.0	180	
1510	19.68	0.680	—	1.41	6.73	261	6.96	mL/min	~~1.49~~ 0.0	180	
1513	19.52	0.682	—	1.34	6.68	262	6.97	mL/min	~~1.39~~ 0.0	180	
1516	19.35	0.683	—	1.22	6.63	263	6.97	mL/min	0.0	180	
											1-1L Poly HNO_3 TAL mtls
											1-1L Poly HNO_3 TAL mtls -FF
											(2) 250 ml NH_4 Poly Hexchrome
											(2) PFC 250 ml Poly
											1 vial + 30 drops 9.5

Recorded By: Jose Flores

Lane Plating Superfund Site
Dallas, Texas

Sticking ≈ 3'

Sheet 1 of 1
Date: 3-4-2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-05 Sample ID: — Sample Time: 0958

Casing diameter/type: 2" PVC
Screened interval(s): 5-10 BGS (8-13 TOC)
Total depth: 10
Initial depth to water (w/o pump): 8.29 TOC
Final depth to water (w/o pump): 10.87
Measuring point: **North side of casing**

Well location: South of main building
Sampling personnel: Jose Flores & Todd Nicherson
Sampling method: Low Flow
Water level indicator: Heron
Water quality meter: ~~YSI~~ Horiba
Pump depth setting: 10.5 TOC

Weather: 50°F, Wind / Breeze NNW, Overcast.
Pump type/model: Pegasus Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
0910											
0914	17.09	0.840	~~8.45~~	8.45	6.80	293	8.30	mL/min	7.59	200	Clear, No odor, No particles.
0917	17.04	0.829	—	5.20	6.72	291	8.87	mL/min	5.03	200	
0920	16.92	0.824	—	4.41	6.70	285	9.08	mL/min	4.37	200	
0923	16.83	0.824	—	4.11	6.74	277	9.25	mL/min	4.09	180	
0925	16.77	0.820	—	3.96	6.75	272	9.40	mL/min	0.0	150	
0928	16.60	0.821	—	3.88	6.72	271	9.53	mL/min	0.0	150	
0931	16.24	0.830	—	3.91	6.67	270	9.66	mL/min	0.0	150	
						1-1L Poly	HNO_3	TAL mtls			1 Vial = 9.4
						1-1L Poly	HNO_3	TAL mtls + FF			
						1-250mL Poly	NH4	Hexchrome			Slow recharge.
						2-250mL Poly	PFC				Lowered tubing 1.5ft.

Recorded By: Jose Flores

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2-4-2020

Stickup ≈ 3.3

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-06 Sample ID: — Sample Time: 1118

Casing diameter/type: 2" PVC
Screened interval(s): 5-20 BGS (8-23) TOC
Total depth: 20 BGS (23 TOC)
Initial depth to water (w/o pump): 9.21 TOC
Final depth to water (w/o pump): 9.42
Measuring point: **North side of casing**

Well location: Southwest side of property
Sampling personnel: Jose Flores & Todd Nickerson
Sampling method: Low Flow
Water level indicator: Heron
Water quality meter: ~~YSI~~ Horiba U-52
Pump depth setting: 15.5

Weather: Overcast; 47°F; Breeze NNW
Pump type/model: Pegasus peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1042	Pump on	~~14.44~~									
1045	14.17	8.75	—	7.56	6.56	200	9.42	mL/min	5.00	200 mL	Clear, No odor, No particles
1048	14.48	1.13	—	2.38	6.51	204	9.42	mL/min	2.29	200 mL	
1050	14.72	~~1.81~~ 1.13	—	1.81	6.53	203	9.44	mL/min	0.0	200 mL	
1053	15.01	1.13	—	1.60	6.52	204	9.45	mL/min	0.0	200 mL	
1056	14.87	1.13	—	1.45	6.52	202	9.45	ml/min	0.0	200 mL	
1059	14.98	1.14	—	1.37	6.51	198	9.46	ml/min	0.0	200 mL	
1101	14.96	1.13	—	1.27	6.50	177	9.46	ml/min	0.0	200 mL	
1104	15.05	1.13	—	1.17	6.49	138	9.47	ml/min	0.0	200 mL	
1107	14.99	1.13	—	1.11	6.49	95	9.48	ml/min	0.0	200 mL	
1110	15.02	1.13	—	1.05	6.48	69	9.48	ml/min	0.0	200 mL	
											1 vial + 20 drops 9.3
											1-1L Poly HNO_3 TAL mtls
											1-1L Poly HNO_3 TAL mtls
											1-250 ml Poly NH4 Hexchrome
											2-250 mL Poly PFC

Recorded By: [signature]

Lane Plating Superfund Site
Dallas, Texas

Stickup ≈ 3ft

Sheet 1 of 1
Date: 9-4-2010

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-07 Sample ID: — Sample Time: 1318

MS/MSD

Casing diameter/type: 2"
Well location: Southwest side of property
Weather: Overcast, 47°F, Mild NNW
Screened interval(s): (5-15 BGS) (8-18 toc)
Sampling personnel: Jose Flores & Todd Nicherson
Total depth: 15 BGS (18 toc)
Sampling method: Low Flow
Initial depth to water (w/o pump): 9.33 toc
Water level indicator: Heron
Final depth to water (w/o pump): 12.00
Water quality meter: ~~YSI~~ Horiba U-52
Measuring point: North side of casing
Pump depth setting: 13.00
Pump type/model: Pegasus peristaltic

	Δ < 1° C*	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1245	Pump on										
1252	11.81	0.953	—	4.22	6.70	151	9.85	ml/min	0.0	200 ml	Clear, No odor, No particles
1255	12.39	0.946	—	3.86	6.60	155	9.95	ml/min	0.0	150 ml	
1258	13.09	0.946	—	3.54	6.67	88	10.11	mL/min	0.0	180 mL	
1301	13.12	0.941	—	3.27	6.77	50	10.30	mL/min	0.0	180 mL	
1304	13.24	0.944	—	3.21	6.90	28	10.48	mL/min	0.0	180 mL	
1307	13.35	0.944	—	3.47	6.95	13	10.59	ml/min	0.0	180 mL	
1310	13.42	0.940	—	3.83	6.95	14	10.70	ml/min	0.0	180 mL	
1313	13.49	0.944	—	3.75	6.94	10	10.81	ml/min	0.0	180 ml	
1316	13.48	0.940	—	3.69	6.93	13	10.91	ml/min	0.0	180 mL	
											(2)-1-L HNO_3 Poly TAL metals
						1 vial +	20 drops	9.4			(2)-1-L HNO_3 Poly TAL metals-FF
						1 vial +	20 drops	9.4			(3)-250mL NH_4 Poly Hexchrome
						1 vial +	20 drops	9.4			(2)-PFC 250ml Poly.

Recorded By: Jose Flores

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2-4-2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-08 **Sample ID:** **Sample Time:**

Casing diameter/type: Well location: Weather:

Screened interval(s): Sampling personnel:

Total depth: ~~7~~ 10.05 ft btoc Sampling method:

Initial depth to water (w/o pump): Water level indicator:

Final depth to water (w/o pump): Water quality meter: YSI

Measuring point: **North side of casing** Pump depth setting: Pump type/model:

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**

Dry No Water

Did Not Sample

Recorded By: Jasa Stroup

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 04 Feb 2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-09 Sample ID: MW-09 (MW-09-F) Sample Time: 1125

Casing diameter/type: 2" PVC Sch 40
Screened interval(s): 5 - 12.5'
Total depth: 12.5'
Initial depth to water (w/o pump): 8.98
Final depth to water (w/o pump): 9.02
Measuring point: **North side of casing**

Well location: Lane Plating
Sampling personnel: AB/JS
Sampling method: Low-Flow
Water level indicator: Heron 100'
Water quality meter: YSI Horiba SBFLLJP2
Pump depth setting: 10

Weather: 45°F, 25 mph, 90% Humidity, Cloudy
Pump type/model: Peristaltic Pegasus

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1104	15.53	1.00	27.7	2.69	6.67	242	7.52	180	10.4	180	
1107	16.30	1.01	29.0	2.74	6.65	228	~~7.90~~ 8.0	180	12.0	360	
1110	16.49	1.01	29.2	2.76	6.61	211	7.90	180	7.7	540	
1113	16.80	1.01	28.5	2.67	6.58	205	8.14	180	1.5	720	
1116	17.00	1.01	28.7	2.66	6.55	198	8.31	180	0.8	900	
1119	16.87	1.01	28.4	2.66	6.55	196	8.47	180	0.0	1080	
1121	16.70	1.01	28.0	2.62	6.54	194	8.60	180	0.0	1260	
											Duplicate collected for all analyses
											Analyses for EPA: Xylene, DM + Hg
											Analyses for Private: Hex Chrome, PFAS

Recorded By: A Bugher

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 4 Feb 2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: MW-10 Sample ID: MW-10 (MW-10-F) Sample Time: 1305

Casing diameter/type: 2" PVC sch 40
Well location: Lane
Weather: 40°F, cold
Screened interval(s): 8-18
Sampling personnel: AB/JS
Total depth: 18
Sampling method: Low-Flow
Initial depth to water (w/o pump): 9.82
Water level indicator: Heron 100'
Final depth to water (w/o pump): 9.80
Water quality meter: YSI Horiba SBFLLJPL
Measuring point: **North side of casing**
Pump depth setting: 17
Pump type/model: Peristaltic Pegasus

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
1245	15.62	1.06	19.1	1.83	6.50	235	9.83	200	67.8	200	
1248	15.83	1.06	18.4	1.76	6.49	235	9.83	200	65.0	400	
1251	16.58	1.06	17.0	1.59	6.47	234	9.83	280	57.8	680	
1254	16.93	1.07	17.5	1.64	6.44	235	9.83	300	56.2	980	
1257	17.60	1.07	18.2	1.68	6.44	233	9.83	360	54.6	1340	
1300	17.70	1.07	18.3	1.69	6.44	233	9.83	360	48.0	1700	
											No field or lab QC
											Collected • TM Hg
											for EPA • DM Hg
											Collected • Hex Chrome
											for Private • PFAS

Recorded By: ABugher

1544 start pump

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: ~~07/04/12~~ 02/04/2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: WW-01 Sample ID: WW-01 Sample Time: 1615

Casing diameter/type: 32" Concrete
Well location: North of Lane Facility
Weather: Cold ≈ 40°F, wind N @ 5-10 mph
Screened interval(s): 32 TD "
Sampling personnel: JAS
Total depth:
Sampling method: Low-Flow
Initial depth to water (w/o pump): 14.15
Water level indicator: Heron 100'
Final depth to water (w/o pump):
Water quality meter: YSI Turbidity SB FLL JP2
Measuring point: **North side of casing**
Pump depth setting: 30'
Pump type/model: Pegasus Peristaltic

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or ~~(µS/cm)~~	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1548	14.76	1.10	23.0	2.25	6.74	243	14.16	300	24.6	1200	
1551	15.59	1.09	23.6	2.27	6.71	244	14.16	300	20.2	~~2400~~ 1700	
1554	15.90	1.09	23.8	2.26	6.69	245	14.16	300	9.3	~~2600~~ 2600	
1557	16.07	1.09	24.2	2.30	6.69	246	14.16	300	0.8	3500	
1600	16.32	1.09	24.7	2.34	6.69	247	14.16	300	0.0	4400	
1603	16.26	1.09	24.6	2.33	6.69	248	14.16	300	0.0	5300	
1606	16.24	1.09	24.6	2.34	6.69	249	14.16	300	0.0	6200	
1609	16.21	1.09	24.7	2.30	6.69	250	14.16	300	0.0	7100	

Recorded By: Jason Stroup

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 04 Feb 2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: WW-02 Sample ID: WW-02 Sample Time: 1455

Casing diameter/type: 32" Concrete
Well location: Lane Plating
Weather: 40°F, Cold, 20 mph
Screened interval(s): ?
Sampling personnel: AS/JS
Total depth: ?
Sampling method: Low-Flow
Initial depth to water (w/o pump): 13.62
Water level indicator: Heron 100'
Final depth to water (w/o pump): 13.63
Water quality meter: YSI Horiba SB FLLJP2
Measuring point: **North side of casing**
Pump depth setting: 30'
Pump type/model: Peristaltic Pegasus

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	Temp (°C)	Conductivity (mS/cm) or (µS/cm)	DO (%)	DO (mg/L)	pH	ORP (mV)	Water Level (feet btoc)	Flow Rate (L/min) or (mL/min)	Turbidity (NTU)	Purge Volume (L) or (mL)	Additional Comments
1435	15.13	0.986	19.8	1.92	6.58	251	13.64	250	0.0	250	
1438	15.58	0.987	20.1	1.93	6.56	252	13.64	250	0.0	500	
1441	15.95	0.987	20.6	1.94	6.55	252	13.64	250	0.0	750	
1444	16.00	0.987	20.4	1.95	6.54	253	13.64	250	0.0	1000	
1447	16.09	0.988	20.3	1.93	6.54	254	13.64	250	0.0	1250	
1450	16.11	0.987	20.4	1.95	6.54	254	13.64	250	0.0	1500	
1453	16.13	0.987	20.3	1.94	6.54	254	13.64	250	0.0	1750	

Recorded By: ABuyher

Lane Plating Superfund Site
Dallas, Texas

Sheet 1 of 1
Date: 2-4-2020

Low-Flow Ground Water Sampling Data Sheet

Well ID: WW-03 Sample ID: — Sample Time: —

Casing diameter/type: Cistern Well (Concrete) Well location: Northside of main bldg. Weather: Overcast, 47°F, Wind NNW

Screened interval(s): — Sampling personnel: Jose Flores & Todd Nickerson

Total depth: 12.10 Dry Sampling method: Low Flow

Initial depth to water (w/o pump): Water level indicator: Heron

Final depth to water (w/o pump): Water quality meter: ~~YSI~~

Measuring point: **North side of casing** Pump depth setting: Pump type/model:

	Δ < 1° C	Δ < 3%	Δ <10%	Δ <10%	Δ < 0.1 pH	Δ < 10 mV	Δ < 0.3 ft	< 1L/min	Δ < 10 NTU		Parameter Stabilization Limits (3 consecutive readings)
Time	**Temp (°C)**	**Conductivity (mS/cm) or (µS/cm)**	**DO (%)**	**DO (mg/L)**	**pH**	**ORP (mV)**	**Water Level (feet btoc)**	**Flow Rate (L/min) or (mL/min)**	**Turbidity (NTU)**	**Purge Volume (L) or (mL)**	**Additional Comments**
											12.10 TD Dry

Recorded By: Jose Flores

Phase 2
RI Field Activities
(March 2020)

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ALL-WEATHER
ENVIRONMENTAL FIELD BOOK
Numbered Pages

Name EA Engineering, Science, and Technology, INC, PBC

Address 405 S. Hwy 121, by pass building C, suite 100

Phone 972-315-3922

Project Lone Plating Works, Superfund Site.
5322 Bonnie View Rd, Dallas, Tx 75241

Logbook #1

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1-18

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150 Approximate Volume of Water in Casing or Hole, Ground Water Monitoring Well
151 PVC Pipe Casing Tables
152 Soil Classification
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154 Maximum Concentration of Contaminants for the Toxicity Characteristic
155 Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
156 Conversions (Length, Weight, Volume, Temp, etc...)

Location Dallas, Dallas Co, TX Date 04-Feb-2020

Project / Client Lane Plating

AO/JS GW-Low-Flow

0800 AB/JS/MA/JF/TN on site
H&S Tailgate
Calibration on YSI, other logbook
0850 Prep. for Low-Flow (FB-20200204-GW)
0935 Start Purging MW-01, WL = 5.68'
1000 Sample time MW-01
TM/DM/Hex/PFAS, no Field/Lab QC
1104 Start Purging MW-09, WL = 6.98
Dup collected all analyses
1125 Sample time MW-09, MW-09-D
TM/DM/Hex/PFAS
Start Purging MW-10, WL = 9.82'
1305 Sample time MW-10 TM/DM/Hex/PFAS
1432 Start Purging WW-02, WL = 13.62'
1455 Sample Time, WW-02
TM/DM/Hex/PFAS no QC
1548 Start Purging WW-01, WL 14.15'
1615 Sample time WW-01
TM/DM/Hex/PFAS
Pack coolers / Done

AB 4-Feb-2020

Location Dallas, Dallas Co, TX Date 3/3/2020

Project / Client Lane Plating / EPA 6

Jason Strong (JAS) & Jack Schwartz (JFS)

Well Survey and gauging water levels.
~~09~~ 1015 on site JAS & JFS
1025 Health & Safety review
1030 setup survey equipment
1102 ~~start~~ arrive at first well location for survey and gauging see following page and data sheet for more information
1430 finish surveying and gauging see following page for water level and well information; also information JAS.
1435 walk to creek just below site to check for water @ possible surface water locations. the creek was still dry.
1500 depart site for office

3/3/2020

Location Dallas, Dallas Co, TX Date 3/3/2020

Project / Client Jane Plating / ETA 6

Well Survey and gauging ft below TOC

Well ID	DTW	TD
MW-01	3.37	11.86
MW-02	5.21	27.81
MW-03	5.10	23.30
MW-04	4.69	18.45
MW-05	5.65	13.18
MW-06	7.01	23.3
MW-07	7.62	18.0
MW-08	Dry	10.04
MW-09	5.80	12.19
MW-10	8.03	17.66
ACMW-01	6.87	26.45
ACMW-02	5.02	24.63
ACMW-03	Dry	18.63
ACMW-04	7.61	29.37
WW-1	12.22	N/A
WW-2	11.58	N/A
WW-3	9.85	10.62 east side of well

WW-1 NG - 1.65

WW-2 NG - 1.22

WW-3 NG - 0.80

3/3/2020

Location Date

Project / Client

Rite in the Rain

Pt name	North	East	Elevation	HA	VA	SD	Time	Date	Code	Latitude	Longitude
PRS380175276427	6994509.548	2377341.76	617.493				10:04:02	3/2/2020		32.8492930	-097.1686113
100	7025532.427	2396684.306	687.851				10:04:11	3/2/2020		32.9338685	-097.1042876
PRS84867413367	6992858.604	2499406.056	626.075				10:31:05	3/3/2020		32.8398690	-096.7712622
Mw-07ng	6937277.862	2500851.263	423.362				11:06:15	3/3/2020	ng	32.6870475	-096.7695381
Mw-07tc	6937278.919	2500854.846	426.534				11:11:12	3/3/2020	tc	32.6870503	-096.7695264
Mw-06tc	6937168.97	2501002.897	426.049				11:17:35	3/3/2020	Tc	32.6867414	-096.7690511
Mw-06ng	6937169.537	2501000.844	422.707				11:20:33	3/3/2020	ng	32.6867430	-096.7690577
Mw-05tc	6937239.368	2501208.415	424.792				11:26:03	3/3/2020	Tc	32.6869256	-096.7683794
Mw-05ng	6937237.028	2501206.376	421.299				11:28:46	3/3/2020	ng	32.6869192	-096.7683861
Mw-04tc	6937377.314	2501280.003	424.243				11:35:46	3/3/2020	Tc	32.6873014	-096.7681393
Mw-04ng	6937376.405	2501275.28	421.024				11:38:47	3/3/2020	ng	32.6872992	-096.7681547
Mw-03tc	6937441.757	2501391.207	424.437				11:43:10	3/3/2020	Tc	32.6874735	-096.7677744
Mw-03ng	6937440.014	2501388.149	421.058				11:45:08	3/3/2020	ng	32.6874689	-096.7677845
Mw-02tc	6937766.041	2501311.73	427.961				11:53:50	3/3/2020	Tc	32.6883684	-096.7680154
Mw-02ng	6937764.43	2501308.217	425.042				11:56:25	3/3/2020	ng	32.6883641	-096.7680269
Mw-08tc	6937726.691	2500721.856	439.906				12:07:53	3/3/2020	Tc	32.6882869	-096.7699346
Mw-08ng	6937728.58	2500725.725	436.657				12:10:08	3/3/2020	ng	32.6882920	-096.7699219
ACMW-03tc	6937727.009	2500701.484	440.402				12:16:03	3/3/2020	Tc	32.6882887	-096.7700008
ACMW-03ng	6937727.867	2500704.067	437.431				12:17:59	3/3/2020	ng	32.6882910	-096.7699924
ww-3tc	6937675.403	2500902.078	430.232				12:29:36	3/3/2020	Tc	32.6881378	-096.7693516
MW-10tc	6937539.975	2500813.319	427.369				12:57:05	3/3/2020	Tc	32.6877696	-096.7696473
MW-10ng	6937539.016	2500811.69	428.017				12:58:43	3/3/2020	ng	32.6877671	-096.7696527
ACMW-04tc	6937539.694	2500838.877	427.463				13:00:54	3/3/2020	Tc	32.6877677	-096.7695643
ACMW-04ng	6937538.986	2500837.608	427.808				13:03:09	3/3/2020	ng	32.6877658	-096.7695685
ACMW-02tc	6937569.619	2500930.074	425.38				13:06:42	3/3/2020	Tc	32.6878458	-096.7692663
ACMW-02ng	6937569.894	2500931.681	425.91				13:08:32	3/3/2020	ng	32.6878465	-096.7692611
MW-09tc	6937575.665	2500942.812	425.047				13:11:25	3/3/2020	Tc	32.6878619	-096.7692246
MW-09ng	6937575.305	2500942.127	425.487				13:13:07	3/3/2020	ng	32.6878609	-096.7692268
MW-01tc	6937533.268	2501047.44	423.557				13:17:42	3/3/2020	Tc	32.6877406	-096.7688868
MW-01ng	6937531.531	2501047.906	423.653				13:20:17	3/3/2020	ng	32.6877358	-096.7688854
ACMW-01tc	6937548.119	2501036.977	423.448				13:22:47	3/3/2020	Tc	32.6877819	-096.7689200
ACMW-01ng	6937546.047	2501035.968	424.018				13:25:03	3/3/2020	ng	32.6877762	-096.7689234
WW-1tc	6937615.785	2500800.672	432.455				13:31:33	3/3/2020	Tc	32.6879786	-096.7696844
WW-2tc	6937655.942	2500836.133	432.054				13:38:53	3/3/2020	Tc	32.6880873	-096.7695670

APPENDIX C:

SOIL BORING AND MONITORING WELL LOGS

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **ACMW-01**

TOTAL DEPTH: **30 ft.**

PROJECT INFORMATION

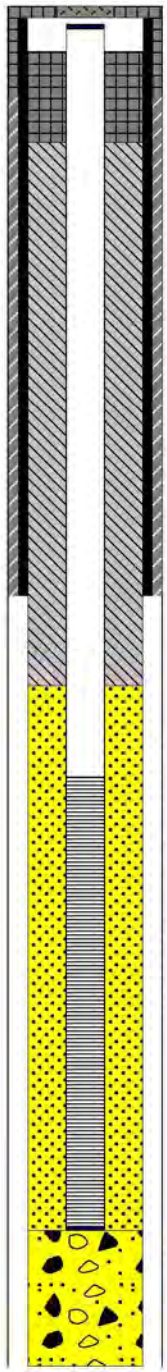
PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/15/2020-1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **CME-75**
DRILLING METHOD: **DPT & HSA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **10" outer and 6" inner**

Water level during drilling Water level in completed well Casing Elevation **423.448**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, very dark brown-black (10YR 2/2-2/1), soft to medium stiff, plastic, moist, trace silt, trash debris (broken glass, melted plastic, gravel).	0-0.5' 0.5'-2.0' 2.0'-5.0'		Pad, Vault, & Surface Seal 8" PVC Surface Casing (0-13')
5		CL	Clay, silty, grayish brown-pale brown(10YR 5/2-6/3), medium stiff to some soft, plastic, moist to dry, silty/fine sand.	5.0'-10.0'		Surface Casing Grout (0-13') Bentonite Chips (3'-15')
10		CL	Clay, silty to sandy, brownish yellow (10YR 6/6), medium stiff to soft, plastic, moist to very moist, silty.	10.0'-12.0' (PFAs)		10" outer borehole
		LS	Chalk, light gray-gray (5Y 7/1-6/1), hard, dry, flaky. Direct Push refusal at 12'.			2" PVC Riser (0-17')
15						20/40 Silica Sand (15'-27') 6" inner borehole
20						2" PVC 0.010" Slot Screen (17'-27')
25						Slough
30				28.0'-30.0'		



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EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **ACMW-02**

TOTAL DEPTH: **30 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/15/2020-1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **CME-75**
DRILLING METHOD: **DPT & HSA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **10" outer and 6" inner**

Water level during drilling Water level in completed well Casing Elevation **425.38**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0			Concrete and fill sand.	0-0.5'		Well Pad & Surface Seal
		CL	Clay, very dark gray, dark grayish brown, yellowish brown (10YR 3/1, 4/2, 5/8), black specks, trace white calcareous nodules, silty, trace fine sand, stiff, plastic, moist to dry.	0.5'-2.0'		8" PVC Surface Casing 0-13.5'
5		CL	Clay, light gray-very pale brown (10YR 7/2-7/4), medium stiff, plastic, moist, silty, some white calcareous nodules.	2.0'-5.0' 5.0'-10.0'		Surface Casing Cement 0-13.5' Bentonite Chips 3'-14'
10			Direct Push refusal at 12.5'.	10.0'-12.0'		10" outer borehole 2" PVC Riser 0-16'
15		LS	Chalk, light gray-gray (5Y 7/1-6/1), hard, dry, flaky.			20/40 Silica Sand 14'-26' 6" inner borehole
20						2" PVC 0.010" Slot Screen 16'-26'
25						Slough
30				28.0'-30.0'		

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **ACMW-03**

TOTAL DEPTH: **20 ft.**

PROJECT INFORMATION

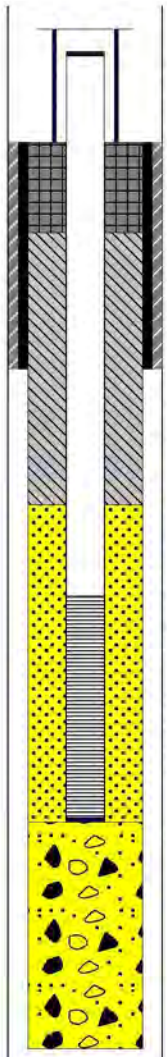
PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/15/2020-1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **CME-75**
DRILLING METHOD: **DPT & HSA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **10" outer and 6" inner**

Water level during drilling Water level in completed well Casing Elevation **440.402**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		OL	Topsoil, dark brown and dark grayish brown (10YR 3/3-10YR 4/2), soft, plastic, moist to dry, silty.	0-0.5'
		LS	Chalk, weathered, 10YR 8/1 (white), dry, blocky, crumbly.	0.5'-2.0'
				2.0'-5.0'
5		LS	Chalk, 10YR 8/1 (white), indurated, hard, brittle, dry. DPT refusal at 6'.	5.0'-10.0'
			Chalk, pale brown (10YR 6/3), gray (N 5/_), hard, dry, massive, silty.	
10		LS	Chalk and marl, light gray-gray (5Y 7/1-6/1), hard, dry, massive , silty.	
15		LS		
				18.0'-20.0'
20		LS		
25				



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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **ACMW-04**

TOTAL DEPTH: **30 ft.**

PROJECT INFORMATION

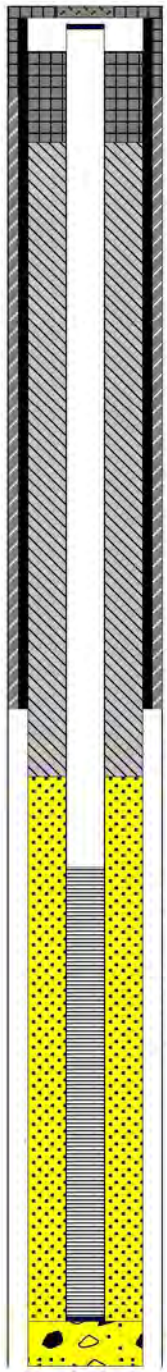
PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/15/2020-1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **CME-75**
DRILLING METHOD: **DPT & HSA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **10" outer and 6" inner**

Water level during drilling Water level in completed well Casing Elevation **427.463**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0			Concrete and fill sand.	0-0.5'
		CL	Clay, black (10YR 2/1), stiff, plastic, moist to dry, little to no silt.	0.5'-2.0'
		CL	Clay, very dark grayish brown (10YR-7.5YR 3/2), stiff, plastic, moist to dry, little to no silt.	2.0'-5.0'
5				5.0'-10.0'
		CL	Clay, dark yellowish brown and grayish brown (10YR 4/4-5/2), stiff to hard, plastic, dry to slightly moist, silty, black streaks.	
		CL	Clay/Silty Clay, light yellowish brown and light gray (10YR 6/4, 7/2), medium stiff to soft, plastic, moist, silty to very silty.	
10				
		CL	Silty Clay, light gray, and yellow- brownish yellow (10YR 7/2, 7/6-6/6), soft to medium stiff, plasitc, moist to very moist, some predominantly clay zones. DPT refusal at 15'.	13.0'-15.0'
15		LS	Chalk and marl, light gray-gray (5Y 7/1-6/1), hard dry, massive , silty.	
20				
25				
				28.0'-30.0'
30				



BORING COMPLETION / WELL DETAILS:

- Pad, Vault, & Surface Seal
- 8" PVC Surface Casing 0-15.5'
- Surface Casing Grout 0-15.5'
- Bentonite Chips 3'-17'
- 10" outer borehole
- 2" PVC Riser 0-19'
- 6" inner borehole
- 20/40 Silica Sand 17'-29'
- 2" PVC 0.010" Slot Screen 19'-29'
- Slough

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-1**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Silty Clay, dark grayish brown and brown (10YR 4/2-4/3), medium stiff to soft, plastic, moist to dry, silty, trace white calcareous nodules.	0-0.5'		Bentonite Chips (0-15' bgs)
		CL	Clay, very dark grayish brown (10YR 3/2), medium stiff to stiff, plastic, moist to dry, silty.	0.5'-2.0' 2.0'-5.0'		
5		CL	Clay, very dark gray (10YR 3/1), medium stiff to stiff, plastic, moist to dry, silty.	5.0'-10.0'		
10		CL	Silty Clay, dark grayish brown, very dark grayish brown and trace yellowish brown (10YR 4/2- 3/2, trace 5/6), very stiff, plastic, moist to dry, silty, black streaks.			
		CL	Clay, gray, brown and yellowish brown (10YR 6/1, 5/3-5/1, 5/6), very stiff, plastic, moist to dry, silty, trace white calcareous nodules.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-2**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/21/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, dark brown and yellowish brown (10YR 3/3-3/4), medium stiff, plastic, moist, silty.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-15' bgs)
5		CL	Silty Clay, very dark gray (10YR 3/1),@ 6.5' change to grayish brown (5/2), medium stiff, plastic, moist to dry, silty to some very silty.	5.0'-10.0'		
10		CL	Clay/Silty Clay, light gray (10YR 7/1), medium stiff, plastic, silty, trace white calcareous nodules, black streaks.			
15		CL	Clay, pale brown and yellowish brown (10YR 6/3- 5/6), trace white calcareous nodules, black streaks, medium stiff, plastic, slightly sitly to no silt.	13.0'-15.0'		
			TD = 15' (NOT REFUSAL)			
20						
25						
30						

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-3**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, dark brown (10YR 3/3), soft to medium stiff, plastic, moist to dry, silty.	0-0.5'		Bentonite Chips (0-15' bgs)
		CL	Clay, dark brown and brown (7.5YR 3/3-4/2), soft to medium stiff, plastic, silty, trace white calcareous nodules.	0.5'-2.0'		
		CL	Clay, dark brown and brown (7.5YR 3/3-4/2), soft to medium stiff, plastic, silty, trace white calcareous nodules.	2.0'-5.0'		
5				5.0'-10.0'		
		CL	Clay/Silty Clay, grayish brown and yellowish brown (10YR 5/2-5/4,5/6), medium stiff to soft, plastic, moist, silty to very silty/fine sand.			
10						
		CL	Silty Clay/Clay, pale brown and yellowish brown (10YR 6/3-5/4), soft to medium stiff, high plasticity, moist to wet, silty to very silty, white calcareous nodules.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-4**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/21/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, dark brown and very dark grayish brown (10YR 3/3-3/2), medium stiff, plastic, moist, silty.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-15' bgs)
5		CL	Clay, medium stiff, plastic, slightly moist to dry, silty.	5.0'-10.0'		
10		CL	Clay/Silty Clay, gray and yellowish brown (10YR 6/1-5/8), medium stiff, plastic, slightly moist to dry, silty, trace white calcareous nodules.			
15		CL	Clay/Silty Clay, gray and yellowish brown (10YR 6/1-5/8), medium stiff, plastic, slightly moist to dry, silty, black streaks, trace white calcareous nodules.	13.0'-15.0'		
20						
25						
30						

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-5**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/21/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, brown (10YR 4/3), medium stiff, plastic, slightly moist, silty/sandy, fine grain, white calcareous nodules.	0-0.5' 0.5'-2.0' 2.0'-5.0' 5.0'-10.0'		Bentonite Chips (0-15' bgs)
5						
		CL	Clay, grayish brown (10YR 5/2), trace white and black, medium stiff, plastic, moist to dry, slightly silty.			
10						
		CL	Clay, brown and yellowish brown (10YR 5/3-5/4), trace black streaks, medium stiff, plastic, moist to dry, slightly silty.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-6**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/20/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, dark grayish brown (10YR 4/2), medium stiff, plastic, moist, slightly silty.	0-0.5'		Bentonite Chips (0-15' bgs)
		CL	Clay, Silty, very dark grayish brown (10YR 3/2), medium stiff to slightly soft, plastic, moist to dry, silty to very silty.	0.5'-2.0' 2.0'-5.0' 5.0'-10.0'		
5						
		CL	Clay, gray and yellowish brown (10YR 5/1- 5/6), very stiff, plastic, moist to dry, slightly silty, some black streaks.			
10						
		CL	Clay, gray (10YR 6/1-5/1), stiff, plastic, moist to dry, slightly silty, trace calcareous nodules.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-7**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/21/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay/Silty Clay, very dark grayish brown (10YR 3/2), soft to medium stiff, plastic, moist, silty to very silty.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-15' bgs)
5		CL	Clay, very dark gray (10YR 3/1), medium stiff, plastic, moist to dry, slightly silty.	5.0'-10.0'		
10		CL	Clay, very dark gray-very dark grayish brown 10YR 3/1-3/2, grayish brown-brown 10YR 5/2-5/3, medium stiff, plastic, slightly moist to dry, silty, trace white calcite nodules.			
15		CL	Clay, gray and yellowish brown (10YR 6/1, some 5/8), medium stiff to stiff, plastic, slightly moist to dry.	13.0'-15.0'		
			TD = 15' (NOT REFUSAL)			
20						
25						
30						

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **BSB-8**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/21/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, very dark grayish brown (10YR 3/2), soft to medium stiff, moist, slightly silty, trace very fine white calcareous nodules, plastic.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-15' bgs)
5		CL	Clay, dark gray and very dark gray (10YR 4/1-3/1), stiff, moist to dry, plastic, slightly silty.	5.0'-10.0'		
10		CL	Clay/Silty Clay, dark gray and trace yellowish brown (10YR 4/1, trace 5/8), stiff to very stiff, plastic, dry, slightly silty, trace white calcareous nodules, some black streaks.			
		CL	Clay/Silty Clay, grayish brown, brown, and yellowish brown (10YR 5/2, 5/3, 5/8), stiff to very stiff, plastic, dry, trace white calcareous nodules, some black streaks.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-1**

TOTAL DEPTH: **11 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/13/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 7.5YR 3/1 (very dark gray), soft, high plasticity, moist, silty.	0-0.5'		Bentonite Chips (0-11' bgs)
		CL	Clay, 7.5YR 4/2, 6/6 (brown, reddish yellow), soft-medium stiff, plastic, silty/sandy, very silty (Silty Clay) 1'-1.5', some white calcareous nodules.	0.5'-2.0'		
		CL	Clay, 7.5YR 3/1-3/2 (very dark gray - dark brown), medium stiff, high plasticity, moist, some silt/sand.			
5		CL	Clay, 7.5YR 3/1-3/2, 2/1 (very dark gray - dark brown, black) , medium stiff, high plasticity, moist, some silt/sand.			
10		CL	Silty/Sandy Clay, 2.5Y 7/1 (light gray), some 10YR 6/8 (brownish yellow), 10YR 6/1 (gray). 8'-9' soft, wet; 9'-11' hard, dry. Some water at bottom of bore hole.	9.0'-11.0'		
			REFUSAL @ 11'			
15						
20						
25						
30						

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-2**

TOTAL DEPTH: **11 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/13/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 2.5YR 3/1 (dark reddish gray), medium stiff, wet-moist, some sand/silt, white calcareous nodules. At 3.75', 2.5Y 6/2 (light brownish gray), with some 6/8 (olive yellow) streaks.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-11' bgs)
5		CL	Clay, 5Y 7/1 (light gray), 2.5Y 6/8 (olive yellow) streaks, soft to medium stiff, plastic, moist, trace silt/sand, calcareous nodules.			
10		CL	Clay, 5Y 7/1 (light gray), 2.5Y 6/8 (olive yellow) streaks, some 2.5Y 7/2 (light gray), medium stiff to hard, plastic, moist to dry, slightly silty. Last 0.25', dry & flaky.	9.0'-11.0'		
			REFUSAL @ 11'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-3**

TOTAL DEPTH: **10 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/15/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 7.5YR 3/1 (very dark gray), soft, plastic, moist.	0-0.5' 0.5'-2.0'		Bentonite Chips (0-10' bgs)
5		CL	Clay, 7.5YR 3/1 (very dark gray) and 10YR 3/2 (very dark grayish brown), soft, plastic, moist.			
		CL	Clay, 10YR 7/3 (very pale brown), hard, dry, flaky and fissile at base. Refusal at 10'.	8.0'-10.0'		
10			REFUSAL @ 10'			
15						
20						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-4**

TOTAL DEPTH: **15 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/14/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.5"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 7.5YR 3/1-10YR 3/2 (very dark gray-very dark grayish brown), soft to medium stiff, plastic, moist, slightly silty.	0-0.5' 0.5'-2.0'		Bentonite Chips (0-15' bgs)
5		CL	Clay, 7.5YR 3/1 (very dark gray), soft-medium stiff, plastic, moist, slightly silty, trace white calcareous nodules.			
10		CL	Clay, 10YR 5/1-4/1 (gray-dark gray), some 5/8 (yellowish brown) streaks, some white calcareous nodules, medium stiff to stiff, plastic, moist to dry, slightly silty to non silty. At 11.2'-11.6', dark brown (as above) very soft, wet.			
		CL	Clay 10YR 5/1 (gray) with some 5/8 (yellowish brown), stiff to hard, plastic, dry to slightly moist, some white calcareous nodules.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-5**

TOTAL DEPTH: **11 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/14/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 7.5YR 3/2 (dark brown), soft to medium stiff, plastic, moist to wet, slightly silty.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-11' bgs)
5		CL	Clay, 10YR 3/1 (very dark gray), soft to medium stiff, plastic, moist to wet, slightly silty.			
10		CL	Clay, 10YR 4/1 (dark gray), some 6/8 (brownish yellow) & 8/1 (white), medium stiff to hard, slightly moist to dry. At 9.25' 10YR 6/3-7/3 (pale brown-very pale brown), becoming very dry, flaky.	9.0'-11.0'		
			REFUSAL @ 11'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-6**

TOTAL DEPTH: **15 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/14/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 10YR 4/2-3/2 (dark grayish brown to very dark grayish brown), soft to medium stiff, high plasticity, moist, slightly silty.	0-0.5' 0.5'-2.0'		Bentonite Chips (0-15' bgs)
5		CL	Clay, 10YR 3/1-3/2 (very dark gray to very dark grayish brown), soft to medium stiff, high plasticity, moist, some white calcareous nodules.			
10		CL	Clay, 10YR 4/1-3/1 (dark gray to very dark gray), 5/1, 5/8 (gray, yellowish brown), medium stiff, plastic, moist to dry, slightly silty, some white calcareous nodules. At 10' changing from dark gray to gray, medium stiff to stiff.			
15		CL	Clay, 2.5Y 6/1, 6/8 (gray, olive yellow), stiff, plastic, dry to moist, silty, calcareous nodules. At 14' becoming dry, flaky.	13.0'-15.0'		
			TD = 15' (NOT REFUSAL)			
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-7**

TOTAL DEPTH: **11 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/15/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 10YR 3/2 (very dark grayish brown), medium stiff, pastic, moist, slightly silty.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-11' bgs)
5		CL	Clay, 10YR 3/1-3/2 (very dark gray-very dark grayish brown), soft to medium stiff, plastic, moist, some white calcareous nodules.			
10		CL	Clay, 10YR 4/1 (dark gray) some 6/8, 8/1 (brownish yellow, white), very stiff, plastic, moist to dry.	9.0'-11.0'		
			REFUSAL @ 11'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-8**

TOTAL DEPTH: **10 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/16/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 2.5Y 2.5/1 (black), soft to medium stiff, high plasticity, moist, slightly silty, trace white calcareous nodules.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-10' bgs)
5		CL	Clay, 2.5Y 6/2, 6/8 (light brownish gray, olive yellow) with some black, soft to medium stiff, plastic, some white calcareous nodules, slightly silty.			
		CL	Clay, 2.5Y 7/1-6/1 (light gray-gray), some 10YR 6/8 (brownish yellow), soft to medium stiff, plastic, some white calcareous nodules, slightly silty.			
		CL	Clay, 2.5Y 7/1-6/1 (light gray-gray), some 10YR 6/8 (brownish yellow), soft to medium stiff, high plasticity, moist, slightly silty, trace white. At 9.75', 2.5Y 7/3 (pale brown), hard, dry, flaky.	8.0'-10.0'		
10			REFUSAL @ 10'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **DSB-9**

TOTAL DEPTH: **12 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/13/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Hand Auger 0-2'. Clay 2.5Y 3/1-2.5/1 (very dark gray-black), soft to medium stiff, plastic, moist.	0-0.5'		Bentonite Chips (0-12' bgs)
		CL	Clay, 2.5Y 6/1-6/2 (gray-light brownish gray) some 5/6 (light olive brown), soft to medium stiff, plastic, moist.	0.5'-2.0' 2.0'-5.0'		
5		CL	Clay, 2.5Y 7/1-6/2 (light gray-light brownish gray), 6/8 (olive yellow), stiff, low to medium plasticity, some sand with white calcareous nodules.			
10		CL	Clay, 2.5Y 7/1-6/2 (light gray-light brownish gray), 7/8 (yellow), stiff, plastic, wet to moist, some coarse sand. Last 0.25', Clay, 2.5Y 7/2 (light gray), dry, flaky.	10.0'-12.0'		
			REFUSAL @ 12'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-1**

TOTAL DEPTH: **11 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/13/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Hand Auger 0-2', refusal @ 1.5'. Clay 10YR 4/2-4/3 (dark grayish brown-brown), soft-medium stiff, plastic, moist, some white calcareous nodules; @ 1.5', gravel & fine asphalt fragments.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-11' bgs)
5		CL	Clay, 10YR 4/2 (dark grayish brown), soft to medium stiff, plastic, wet, (poor recovery; ~0.5' wet)			
10		CL	Sandy Clay/Clay, 10YR 4/2 (dark grayish brown) soft to stiff, odor detected, 8'-9', some gravel and paper fragments, wet, @ 9', gray & white, soft to medium stiff, plastic, moist.	9.0'-11.0'		
			REFUSAL @ 11'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-2**

TOTAL DEPTH: **10 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/16/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2-.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, 7.5YR 3/2 (dark brown), soft to medium stiff, plastic, moist, silty.	0-0.5'		Bentonite Chips (0-13' bgs)
		CL	Clay, 10YR 3/1-3/2 (very dark gray-very dark grayish brown), 5/2-5/8 (grayish brown-yellowish brown), soft to medium stiff, plastic, moist, slightly silty, trace white calcareous nodules.	0.5'-2.0' 2.0'-5.0'		
5		CL	Clay, 10YR 6/1-5/1 (gray), with some 5/8 (yellowish brown), medium stiff to stiff, plastic, moist, slightly silty.			
		CL	Clay, 10YR 6/1-5/1 (gray), with some 5/8 (yellowish brown), medium stiff to stiff/hard, medium plasticity, moist-dry, slightly silty.	8.0'-10.0'		
10		CL	Clay, 10YR 7/8-6/8 (yellow-brownish yellow), hard, dry, flaky/shaly.			
			REFUSAL @ 13'			
15						
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-3**

TOTAL DEPTH: **13 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/13/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0			Clay, 10YR 3/1 (very dark gray), medium stiff to soft, high plasticity, some fine white calcareous nodules.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-13' bgs)
5			Clay, 10YR 4/1-2/1 (dark gray-black), 4/6 (dark yellowish brown), medium stiff, moist, some fine white calcarous nodules.			
			Clay, 10YR 4/1 (dark gray), 5/6 yellowish brown, very stiff to hard, moist to dry.			
10			Clay, 10YR 4/1 (dark gray), 7/6 yellow, very stiff to hard, dry to slightly moist.			
			Clay, 10YR 7/2-7/1 (light gray) very stiff to hard, dry, flaky.	11.0'-13.0'		
15						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-4**

TOTAL DEPTH: **15 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/13/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Direct Push**
SAMPLING METHOD: **Plastic Liners**
BOREHOLE SIZE: **2.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Hand Auger 0-2'. Clay 7.5YR 3/2 (dark brown), soft, medium to high plasticity, moist, slightly silty.	0-0.5'		Bentonite Chips (0-15' bgs)
▼		CL	Clay, 7.5YR 4/2 (brown), soft to medium stiff, high plasticity, moist, slightly silty.	0.5'-2.0' 2.0'-5.0'		
5		CL	Clay, 7.5YR 4/3 (brown), soft to medium stiff, high plasticity, moist, little to no silt.			
10		CL	Clay, 10YR 6/4 (light yellowish brown), soft to stiff, high plasticity, moist. Stiff 8'-10', softer 10'-12', moist to slightly wet.			
15		CL	Clay, 10YR 7/3 (very pale brown) and 5/6 (yellowish brown), soft to medium stiff, high plasticity, moist.	13.0'-15.0'		
			TD = 15' (NOT REFUSAL) Water @ ~1.5'-2' bgs in openhole.			
20						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-5**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/16/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, dark brown (7.5YR 3/2), soft to medium stiff, plastic, moist, trace silty, trace white calcareous nodules, some rounded gravel at surface.	0-0.5'		Bentonite Chips (0-15' bgs)
		CL	Clay, dark brown (7.5YR 3/2), soft to medium stiff, plastic, moist, trace silty, trace white calcareous nodules.	0.5'-2.0' 2.0'-5.0'		
5		CL	Clay, brown (7.5YR 4/3) reddish brown (5YR 4/4), very stiff to hard, plastic, slightly moist to dry, little to no silt (more silt w/ depth).	5.0'-10.0'		
10		CL	Clay, yellowish brown (10YR 5/4), at 11' change to light brown (7.5YR 6/4), stiff to some medium stiff, plastic, dry to slightly moist, very silty (less w/ depth).			
		CL	Clay, very pale brown (10YR 7/3), medium stiff to stiff, blocky, dry to slightly moist.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
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NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-6**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/16/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, dark brown (7.5YR 3/3), soft to medium stiff, plastic, moist to dry, trace subrounded gravel at surface.	0-0.5'		Bentonite Chips (0-15' bgs)
		CL	Clay, brown (7.5YR 4/3), medium stiff, plastic, moist to dry.	0.5'-2.0' 2.0'-5.0' 5.0'-10.0'		
5						
		CL	Clay, brown (7.5YR 4/4), medium stiff, plastic, moist to dry.			
10		CL	Clay, very pale brown (10YR 7/4), brown (7.5YR 4/4), light yellowish brown (10YR 6/4), soft to medium stiff, slightly silty/sandy, dry to moist, plastic.			
		CL	Clay, very pale brown (10YR 7/3), medium stiff to soft, moist to very moist/slightly wet, silty.	13.0'-15.0'		
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-7**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/13/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, very dark grayish brown (10YR 3/2), soft to stiff, plastic, moist, little to no silt/sand.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-15' bgs)
5		CL	Clay, very dark gray and dark grayish brown (10YR 3/1-4/2), soft to medium stiff, plastic, moist, little to no silt, no sand.	5.0'-10.0'		
10		CL	Clay, dark gray and yellowish brown (10YR 4/1, 5/8), stiff, plastic, moist, little to no silt, no sand, some white calcareous nodules.	10.0'-15.0'		
15		CL	Clay, gray and yellowish brown (10YR 5/1, 5/8), stiff, plastic, moist, little to no silt, no sand, some white calcareous nodules.			
			TD = 15' (NOT REFUSAL)			
20						
25						
30						

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Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-8**

TOTAL DEPTH: **15.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/13/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, very dark gray (10YR 3/1), soft to stiff, plastic, moist.	0-0.5' 0.5'-2.0'		Bentonite Chips (0-15' bgs)
		CL	Clay, very dark gray (10YR 3/1), soft to medium stiff, plastic, moist to very moist.	2.0'-5.0'		
5		CL	Clay, dark gray (2.5Y 4/1), medium stiff to stiff, plastic, moist to some wet.	5.0'-10.0'		
▽		CL	Clay, gray with brownish yellow streaks (10YR 5/1, 6/8), stiff, plastic, moist, trace white calcareous nodules, black streaks.	10.0'-15.0'		
10						
15			TD = 15' (NOT REFUSAL)			
20						
25						
30						

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-9**

TOTAL DEPTH: **14.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/14/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, very dark grayish brown and very dark brown (10YR 3/2, 2/2), medium stiff, plastic, moist.	0-0.5' 0.5'-2.0'		Bentonite Chips (0-14' bgs)
		CL	Clay, very dark brown and very dark grayish brown (10YR 2/2-3/2), some brownish yellow (6/6), medium stiff to stiff, plastic, moist to dry.	2.0'-5.0'		
5		CL	Clay, pale brown and light yellowish brown (10YR 6/3-6/4), medium stiff to stiff, plastic, moist to dry.	5.0'-10.0'		
10		CL	Silty clay, light gray, yellowish brown, light yellowish brown (10YR 7/2, 6/8, 6/4), soft to medium stiff, high plasticity, some silt, trace coarse grain sand, moist to very moist/slightly wet.	12.0-14.0'		
15			Refusal/TD at 14'.			
20						
25						
30						

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-10**

TOTAL DEPTH: **13.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/14/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Clay, very dark grayish brown and very dark brown (10YR 3/2- 2/2), medium stiff, plastic, dry to moist, sitly.	0-0.5' 0.5'-2.0' 2.0'-5.0'		Bentonite Chips (0-13' bgs)
5		CL	Clay, light gray and yellowish brown (10YR 7/1, 5/8), soft to medium stiff, plastic, moist, wet 6'-6.75', some calcareous nodules.	5.0'-10.0'		
10		CL	Silty Clay, light gray (10YR 7/2), medium stiff, moist to wet, medium plasticity, trace sand.	11.0'-13.0'		
			SLUFF, medium-trace coarse Sand, clayey, wet, loose,			
		LS	Chalk/Limestone, hard, dry, brittle, shaly.			
			Refusal/TD at 13'			
15						
20						
25						
30						

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **JSB-11**

TOTAL DEPTH: **13.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/15/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **2"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0		CL	Asphalt & Fill Sand, brownish yellow (10YR 6/6), loose, fine to coarse sand, moist, trace fine gravel.	0-0.5'		Bentonite Chips (0-13' bgs)
			Clay, very dark gray (10YR 3/1), stiff, plastic, moist, little to no silt/sand.	0.5'-2.0'		
		CL	Clay, dark grayish brown (10YR 4/2), stiff, plastic, moist to dry, little to no silt/sand.	2.0'-5.0'		
5		CL	Clay, dark gray (2.5Y 4/1), moist to dry, plastic, very silty.	5.0'-10.0'		
		CL	Clay, light gray and white with trace yellowish brown (5Y 7/1-8/1 trace 10YR 5/8), stiff, dry, silty, plastic.			
		CL	Clay, grayish brown and dark gray (2.5Y 5/2-4/1), silty, stiff, dry, plastic.			
10		CL	Clay, light gray and pale brown (2.5Y 7/2-7/3), stiff to medium stiff, plastic,dry to moist, moist to wet 11'-12'.	11.0'-13.0'		
▽		LS	Chalk/Limestone,light gray and pale brown (2.5Y 7/2-7/3), hard, dry, brittle, flaky.			
			Refusal/TD at 13'			
15						
20						
25						
30						

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-1**

TOTAL DEPTH: **12 ft**

PROJECT INFORMATION

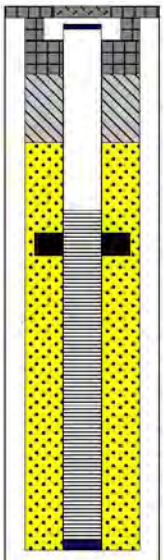
PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/16/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **DPT - Plastic Liners**
BOREHOLE SIZE: **7.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		CL	Clay/Silty Clay, 10YR 3/2 (very dark grayish brown), medium stiff, plastic, moist, slightly silty, (topsoil).	0-0.5'
		CL	Sandy Clay/Clayey Sand, 10YR 5/6 (yellowish brown), Fill, last 0.5' very stiff Clay 10YR 3/2-2/2 (very dark grayish brown-very dark brown), little-no silt/sand.	0.5'-2.0'
			No Recovery	3.5'-5.0'
5		CL	Clay, 10YR 4/2 (dark grayish brown), some white calcareous nodules, slightly soft-stiff, plastic, moist-dry.	6.0'-8.0'
10		CL	Clay, 10YR 6/4 (light yellowish brown), stiff-hard, medium plastic, moist-dry, some rounded fine gravel, slightly silty.	
		LS	Chalk, hard, dry, blocky.	
			TD at 12 ft.	
15				
20				
25				
30				



BORING COMPLETION / WELL DETAILS

- Pad, Vault, & Surface Seal
- Bentonite Chips 1.5'-3'
- 2" PVC Riser 0-4.5'
- Centralizer
- 20/40 Silica Sand 3'-12'
- 2" PVC 0.010" Slot Screen 4.5'-12'

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-2**

TOTAL DEPTH: **25 ft**

PROJECT INFORMATION

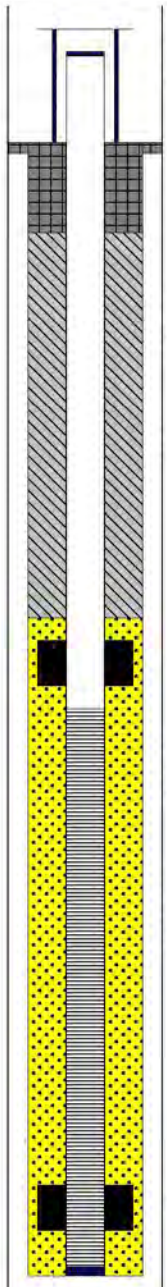
PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/14/2019**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 5822 DT**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **DPT - Plastic Liners**
BOREHOLE SIZE: **7.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		CL	Clay, 7.5YR 3/2-3/1 (very dark gray - dark brown) , soft-medium stiff, plastic, moist.	0-0.5' 0.5'-2.0'
5		CL	Clay, 10YR 3/1-3/2 (very dark gray - very dark grayish brown), medium stiff, plastic, moist, crumbly.	
10		CL	Clay, 10YR 4/1-4/4 (dark gray - dark grayish brown), 2.5Y 5/2 (grayish brown) mottled, stiff, plastic, some crumbly, moist.	
15		CL	Clay, 10YR 4/2 (dark grayish brown), with fine black streaks, stiff, plastic, most-dry, slighlty silty, crumbly (15.5').	14.0'-16.0' 16.0'-18.0'
20		CL	Clay, 10YR 4/2-4/3 (dark grayish brown - brown), fine black streaks, stiff, plastic, most-dry, slighlty silty.	
25				



BORING COMPLETION	WELL DETAILS
	Stick Up, Pad, and Well Cover
	Surface Seal
	Bentonite Chips 2'-10.5'
	2" PVC Riser 0-12.5'
	Centralizer
	20/40 Silica Sand 10.5'-25'
	2" PVC 0.010" Slot Screen 12.5'-25'
	Centralizer

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-3**

TOTAL DEPTH: **24 ft**

PROJECT INFORMATION

PROJECT: **Lane Plating Works, Inc Superfund Site**
SITE LOCATION: **Dallas, TX**
ADDRESS: **Lane Plating**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **5/15/2019**

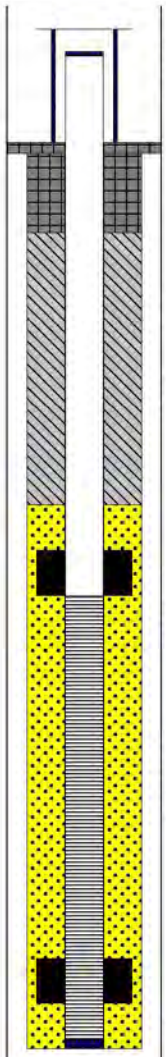
DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Frank Chavez**
RIG TYPE: **Geoprobe 5822 DT**
DRILLING METHOD: **Hollow Stem Auger**
SAMPLING METHOD: **DPT - Plastic Liners**
BOREHOLE SIZE: **7.25"**

Water level during drilling Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		CL	Clay, 10YR 3/2 (very dark grayish brown), soft-medium stiff, plastic, moist.	0-0.5' 0.5'-2.0'
5		CL	Clay, 10YR 3/1 (very dark gray), soft-medium stiff, plastic, moist.	7.0'-9.0' 9.0'-11.0'
10		CL	Clay, 10YR 4/1-5/8 (dark gray - yellowish brown), stiff, plastic, moist-dry, (10-11; crumbly-softer, moist-wet).	
15		CL	Clay, 10YR 4/2-3/1 (dark grayish brown - very dark gray), very stiff, plastic, dry-very slightly moist.	
20		CL	Clay, 10YR 4/1 (dark gray), stiff, plastic, moist. TD with Direct Push at 24'. TD with Hollow Stem Auger at 20' to set well.	
25				

BORING COMPLETION



WELL DETAILS

Stick Up, Pad, and Well Cover
Surface Seal
Bentonite Chips 2'-8'
2" PVC Riser 0-10'
Centralizer
20/40 Silica Sand 8'-20'
2" PVC 0.010" Slot Screen 10'-20'
Centralizer

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FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-04**

TOTAL DEPTH: **15 ft.**

PROJECT INFORMATION

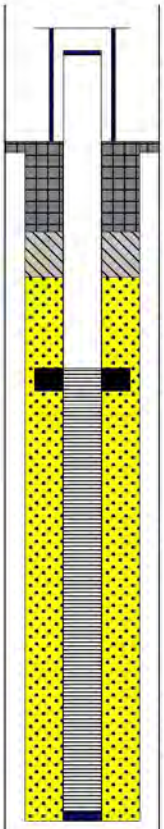
PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/13/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation **424.243**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0			Clay, very dark grayish brown (10YR 3/2), soft, plastic, moist, trace white calcareous nodules.	0-0.5'		Stick Up, Pad, and Well Cover; Surface Seal
		CL	Clay, very dark grayish brown (10YR 3/2), soft to medium stiff, plastic, moist..	0.5'-2.0'		Bentonite Chips 2'-3'
				2.0'-5.0'		2" PVC Riser 0-5'
5		CL	Clay, light brownish gray, white, and brownish yellow (10YR 6/2, 8/1, 6/8), soft to medium stiff, moist to some wet, high plasticity, slightly silty.	5.0'-10.0'		Centralizer
▽						20/40 Silica Sand 3'-15'
10				10.0'-15.0'		
		CL				2" PVC 0.010" Slot Screen 5'-15'
15			Clay, gray and dark gray (10YR 5/1- 4/1), some white (8/1), trace brownish yellow (6/8), soft to medium stiff, plastic, moist to dry, becoming flaky, hard.			
20						
25						



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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-05**

TOTAL DEPTH: **10 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/13/2020**

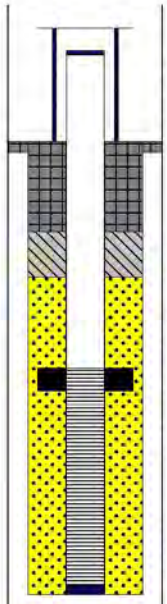
DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation **424.792**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		CL	Clay, very dark gray and very dark grayish brown (7.5YR 3/1- 3/2), medium stiff to soft, plastic, moist, little to no silt.	0-0.5'
				0.5'-2.0'
				2.0'-5.0'
5		CL	Clay, dark gray (7.5YR 4/1), soft to medium stiff, moist to wet, plastic.	5.0'-10.0'
▽		CL	Clay, gray (2.5Y 6/1), soft to medium stiff, moist to wet, plastic.	
		CL	Clay, pale brown and light gray (2.5Y 7/3- 7/1), hard, brittle, flaky.	
10				
15				
20				
25				

BORING COMPLETION / WELL DETAILS



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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-06**

TOTAL DEPTH: **20 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/14/2020**

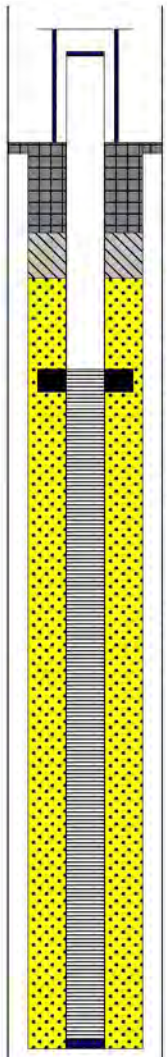
DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation **426.049**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		OL	Topsoil & Fill/Debris, yellowish brown, very pale brown, and yellow (10YR 5/4, 8/4-8/6), soft, plastic, moist, semi firm, angular gravel 6"-8".	0-0.5'
		CL	Clay, very dark brown (7.5YR 2.5/2), medium stiff to stiff, plastic, moist to dry.	0.5'-2.0' 2.0'-5.0'
5		CL	Clay, very dark gray and dark brown (7.5YR 3/1-3/2), medium stiff, plastic, moist, little to no silt.	5.0'-10.0'
		CL	Clay, dark gray (7.5YR 4/1), medium stiff, plastic, moist, little to no silt.	
10 ▽		CL	Clay, dark gray, (10YR 4/1), soft to medium stiff, plastic, moist to wet.	
		CL	Clay, yellow with trace dark gray and light gray (10YR 7/6 trace 4/1 and 7/1), medium stiff, plastic, moist to some wet zones 16'-17'.	
15		CL		17.0'-19.0'
20		LS	Chalk, very pale brown (10YR 7/3-7/4), hard, brittle, blocky, dry.	
25				

BORING COMPLETION / WELL DETAILS



NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-07**

TOTAL DEPTH: **15 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/14/2020**

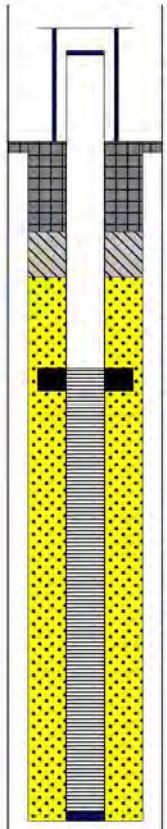
DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

Water level during drilling Water level in completed well Casing Elevation **426.534**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		CL	Clay, veyr dark gray (7.5YR 3/1), medium stiff, plastic, moist, trace silt, trace Hematite red (2.5YR 4/8).	0-0.5'
				0.5'-2.0'
				2.0'-5.0'
5		CL	Clay, black (10YR 2/1), medium stiff to stiff, plastic, moist, trace silt/fine sand.	5.0'-10.0'
10		CL	Clay, light gray and brownish yellow (10YR 7/1- 6/8), stiff to hard, plastic, moist to dry, wet 11.5'-11.7'.	
		LS	Chalk, very hard, brittle, dry. DPT refusal 14'. Continuous Flight Augers to 15' to set well.	12.0'-14.0'
15				
20				
25				

BORING COMPLETION



WELL DETAILS

- Stick Up, Pad, and Well Cover
- Surface Seal
- Bentonite Chips 2'-3'
- 2" PVC Riser 0-5'
- Centralizer
- 20/40 Silica Sand 3'-15'
- 2" PVC 0.010" Slot Screen 5'-15'

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-08**

TOTAL DEPTH: **6.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/16/2020**

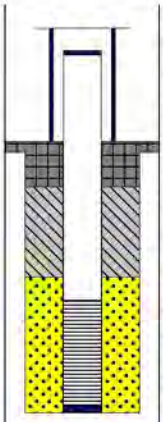
DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

Water level during drilling Water level in completed well Casing Elevation **439.906**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0		CL	Clay(Topsoil), dark brown (10YR 3/3), soft, plastic, moist to dry, silty.	0-0.5'
		CL	Clay, dark grayish brown (10YR 4/2), soft, plastic,moist to dry, silty.	0.5'-2.0'
			Chalk, Weathered, white (10YR 8/1), soft to slightly hard, blocky, flaky, dry.	2.0'-5.0'
5			Chalk, white (10YR 8/1), hard, brittle, flaky, dry.	5.0'-6.0'
10				
15				
20				
25				

BORING COMPLETION



WELL DETAILS

Stick Up, Pad, and Well Cover

Surface Seal

2" PVC Riser 0-3.5'

Bentonite Chips 1'-3'

20/40 Silica Sand 3'-6'

2" PVC 0.010" Slot Screen 3.5'-6'

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-09**

TOTAL DEPTH: **12.5 ft.**

PROJECT INFORMATION

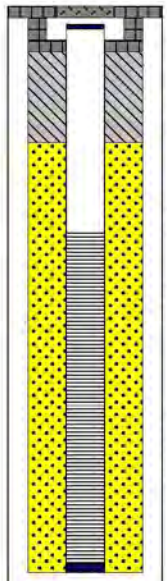
PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/15/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

Water level during drilling Water level in completed well Casing Elevation **425.047**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES
0			Concrete/ fill sand, loose, fine to medium grained, some coarse, moist to wet.	0-0.5'
		CL	Clay, black (10YR 2/1), medium stiff, plastic, moist, little-no silt/sand.	0.5'-2.0'
		CL	Clay, dark brown and dark grayish brown (10YR 3/3-4/2), brownish yellow (6/6), medium stiff, moist, slightly silty, becoming hard, dry, brittle.	2.0'-5.0' 5.0'-10.0'
		CL	Clay, Silty, yellowish brown and very pale brown (10YR 5/8-7/4), medium stiff, plastic, moist, silty, trace hematite nodules.	10.0'-12.0'
			DPT refusal @ 12.5' (formation hard, dry 12'-12.5').	



BORING COMPLETION / WELL DETAILS:
- Pad, Vault, & Surface Seal
- Bentonite Chips 1'-3'
- 2" PVC Riser 0-5'
- 20/40 Silica Sand 3'-12.5'
- 2" PVC 0.010" Slot Screen 5'-12.5'

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-10**

TOTAL DEPTH: **18.0 ft.**

PROJECT INFORMATION

PROJECT: **Lane Plating Works**
SITE LOCATION: **Dallas, TX**
ADDRESS: **5322 Bonnie View Road**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **Mark Paddack**
DATE DRILLED: **1/16/2020**

DRILLING INFORMATION

DRILLING CO.: **Sunbelt**
DRILLER: **Juan Ramon Alcala**
RIG TYPE: **Geoprobe 7822 DT**
DRILLING METHOD: **DPT & CFA**
SAMPLING METHOD: **Acetate Sleeves**
BOREHOLE SIZE: **7.25"**

Water level during drilling Water level in completed well Casing Elevation **427.369**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
0			Topsoil, black (10YR 2/1), medium stiff, plastic, moist, little to no silt.	0-0.5'		Pad, Vault, & Surface Seal
			Clay, very dark gray, dark brown, and trace strong brown (7.5YR 3/1, 3/2, trace 5/8), medium stiff to stiff, plastic, moist to dry, little to no silt.	0.5'-2.0' 2.0'-5.0'		Bentonite Chips 2'-6' 2" PVC Riser 0-8'
5			Clay, dark yellowish brown (10YR 4/4), stiff, plastic, moist to dry, silty.	5.0'-10.0'		20/40 Silica Sand 6'-18'
10			Silty Clay, light yellowish brown and brownish yellow (10YR 6/4-6/6), soft to medium stiff, plastic, dry to slightly moist, silty to very silty, slightly sandy.			
			Silty Clay/Sandy Clay, light yellowish brown and brownish yellow (10YR 6/4-6/6), soft to medium stiff, plastic, dry to slightly moist, silty/sandy, abundant fine to some medium, trace coarse sand/fine gravel, subangular, trace Gypsum.			2" PVC 0.010" Slot Screen 8'-18'
15				16.0'-18.0'		
			Chalk, light brownish gray (10YR 6/2), hard, brittle, flaky, dry.			
20						
25						
30						

NOTES: THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT

APPENDIX D:

BACKGROUND UTL CALCULATIONS

TABLE D-1
BACKGROUND UTLS
SURFACE SOIL, LANE PLATING WORKS, INC. SUPERFUND SITE

Matrix	Total or Dissolved	Analyte	Units	Total Number of Observations	Number of Detects	FOD	Maximum Detect	Mean of Detects	Distribution	UTL	UTL Method
SS	NA	Aluminum	mg/kg	20	20	100%	8220	5505.5	Normal	8516	95% UTL with 95% Coverage
SS	NA	Arsenic	mg/kg	20	20	100%	6.3	4.1735	Normal	6.305	95% UTL with 95% Coverage
SS	NA	Barium	mg/kg	20	20	100%	114	78.795	Normal	110.8	95% UTL with 95% Coverage
SS	NA	Beryllium	mg/kg	20	8	40%	0.8	0.5915	Normal	0.869	95% UTL with 95% Coverage
SS	NA	Calcium	mg/kg	20	20	100%	184000	154805	Nonparametric	184000	Maximum
SS	NA	Chromium	mg/kg	20	20	100%	10.7	6.316	Approximate Normal	10.41	95% UTL with 95% Coverage
SS	NA	Chromium, hexavalent	mg/kg	17	12	71%	2.4	0.5625	Approximate Gamma	1.672	95% Approx. Gamma UTL with 95% Coverage (HW)
SS	NA	Cobalt	mg/kg	20	20	100%	9.7	6.3455	Normal	9.851	95% UTL with 95% Coverage
SS	NA	Copper	mg/kg	20	20	100%	12.8	7.9085	Normal	12.82	95% UTL with 95% Coverage
SS	NA	Iron	mg/kg	20	20	100%	10400	7030.5	Normal	9951	95% UTL with 95% Coverage
SS	NA	Lead	mg/kg	20	20	100%	77.3	24.875	Approximate Lognormal	77.3	Maximum
SS	NA	Magnesium	mg/kg	20	20	100%	2100	1617.5	Normal	2083	95% UTL with 95% Coverage
SS	NA	Manganese	mg/kg	20	20	100%	1240	788.25	Normal	1170	95% UTL with 95% Coverage
SS	NA	Nickel	mg/kg	20	20	100%	18.5	13.581	Normal	18.95	95% UTL with 95% Coverage
SS	NA	Perfluorooctanesulfonic acid	mg/kg	16	14	88%	0.0049	2.12E-03	Approximate Normal	0.00592	95% UTL 95% Coverage
SS	NA	Potassium	mg/kg	20	20	100%	1730	801.5	Approximate Normal	1508	95% UTL with 95% Coverage
SS	NA	Sodium	mg/kg	20	18	90%	441	167.8944444	Nonparametric	441	95% UTL with 95% Coverage
SS	NA	Vanadium	mg/kg	20	20	100%	40.3	27.095	Normal	41.66	95% UTL with 95% Coverage
SS	NA	Zinc	mg/kg	20	20	100%	53.9	25.55	Approximate Lognormal	53.9	Maximum

Notes:
FOD = Frequency of Detection
mg/kg = milligrams per kilogram
NA = Not Applicable
SS = Surface Soil
UTL = Upper Tolerance Limit

TABLE D-2
BACKGROUND UTLS
SUBSURFACE SOIL, LANE PLATING WORKS, INC. SUPERFUND SITE

Matrix	Total or Dissolved	Analyte	Units	Total Number of Observations	Number of Detects	FOD	Maximum Detect	Mean of Detects	Distribution	UTL	UTL Method
SB	NA	Aluminum	mg/kg	24	24	100%	5141.25	7691	95% UTL with 95% Coverage	7073	95% UPL (t)
SB	NA	Arsenic	mg/kg	24	22	92%	4.386363636	9.5	95% Approx. Gamma UTL with 95% Coverage	7.779	95% Approx. Gamma UPL
SB	NA	Barium	mg/kg	24	24	100%	65.16666667	147	95% UTL with 95% Coverage	127.2	95% UPL (t)
SB	NA	Beryllium	mg/kg	24	8	33%	0.6125	0.7	Maximum	0.7	Maximum
SB	NA	Calcium	mg/kg	24	24	100%	173041.6667	223000	Maximum	223000	Maximum
SB	NA	Chromium	mg/kg	24	24	100%	5.341666667	7.396	95% UTL with 95% Coverage	6.898	95% UPL (t)
SB	NA	Chromium, hexavalent	mg/kg	24	15	63%	0.596666667	2.554	95% UTL with 95% Coverage	1.435	95% UPL (t)
SB	NA	Cobalt	mg/kg	24	20	83%	5.125	9.691	95% UTL with 95% Coverage	8.47	95% KM UPL (t)
SB	NA	Copper	mg/kg	24	24	100%	6.966666667	10.01	95% UTL with 95% Coverage	9.274	95% UPL (t)
SB	NA	Iron	mg/kg	24	24	100%	6540.833333	10797	95% UTL with 95% Coverage	9765	95% UPL (t)
SB	NA	Lead	mg/kg	24	24	100%	11.3	15.7	95% UTL with 95% Coverage	14.63	95% UPL (t)
SB	NA	Magnesium	mg/kg	24	24	100%	1501.666667	1733	95% UTL with 95% Coverage	1677	95% UPL (t)
SB	NA	Manganese	mg/kg	24	24	100%	639.75	1233	95% UTL with 95% Coverage	1089	95% UPL (t)
SB	NA	Nickel	mg/kg	24	24	100%	11.85416667	19.14	95% UTL with 95% Coverage	17.38	95% UPL (t)
SB	NA	Perfluorobutanoic acid	mg/kg	8	2	25%	0.0011	1.10E-03	Maximum	0.0011	Maximum
SB	NA	Potassium	mg/kg	24	24	100%	659.1666667	929.5	95% UTL with 95% Coverage	864	95% UPL (t)
SB	NA	Sodium	mg/kg	24	24	100%	170.8333333	294.3	95% UTL with 95% Coverage	258.8	95% UPL (t)
SB	NA	Vanadium	mg/kg	24	24	100%	24.24583333	49.03	95% UTL with 95% Coverage	41.39	95% UPL (t)
SB	NA	Zinc	mg/kg	24	24	100%	16.725	22.04	95% UTL with 95% Coverage	20.75	95% UPL (t)

Notes:
FOD = Frequency of Detection.
mg/kg = Milligram per kilogram.
NA = Not Applicable.
SB = Subsurface soil.
UPL = Upper prediction limit.
UTL = Upper Tolerance Limit.
95% UPL (t) = 95% Kaplan-Meier UPL (t).

TABLE D-3
BACKGROUND UTLS
SURFACE WATER, LANE PLATING WORKS, INC. SUPERFUND SITE

Matrix	Total or Dissolved	Analyte	Units	Total Number of Observations	Number of Detects	FOD	Maximum Detect	Mean of Detects	Distribution	UTL	UTL Method
SW	T	Barium	ug/L	9	9	100%	105	87.81111111	Nonparametric	105	Maximum
SW	T	Calcium	ug/L	9	9	100%	150000	120077.7778	Normal	201701	95% UTL with 95% Coverage
SW	T	Iron	ug/L	9	9	100%	992	250.7111111	Gamma	1597	95% HW Approx. Gamma UTL with 95% Coverage
SW	T	Magnesium	ug/L	9	9	100%	3310	2931.111111	Approximate Normal	4383	95% UTL with 95% Coverage
SW	T	Manganese	ug/L	9	9	100%	384	106.1777778	Gamma	585.9	95% HW Approx. Gamma UTL with 95% Coverage
SW	T	Potassium	ug/L	9	9	100%	5990	2513.333333	Nonparametric	5990	Maximum
SW	T	Sodium	ug/L	9	9	100%	22800	16093.33333	Approximate Gamma	22800	Maximum

Notes:
FOD = Frequency of Detection.
SW = Surface water.
T = Total.
ug/L = Microgram per liter.
UTL = Upper Tolerance Limit.

TABLE D-4
BACKGROUND UTLS
SEDIMENT, LANE PLATING WORKS, INC. SUPERFUND SITE

Matrix	Total or Dissolved	Analyte	Units	Total Number of Observations	Number of Detects	FOD	Maximum Detect	Mean of Detects	Distribution	UTL	UTL Method
SD	N	Aluminum	mg/kg	12	12	100%	7340	4890.833333	Normal	10488	95% UTL with 95% Coverage
SD	N	Arsenic	mg/kg	12	12	100%	5.7	4.358333333	Normal	7.308	95% UTL with 95% Coverage
SD	N	Barium	mg/kg	12	12	100%	95.7	72.16666667	Normal	119.6	95% UTL with 95% Coverage
SD	N	Calcium	mg/kg	12	12	100%	188000	155333.3333	Normal	224296	95% UTL with 95% Coverage
SD	N	Chromium	mg/kg	12	12	100%	27.2	10.175	Gamma	33.37	95% HW Approx. Gamma UTL with 95% Coverage
SD	N	Chromium, hexavalent	mg/kg	10	7	70%	1.1	0.617142857	Normal	1.364	95% UTL with 95% Coverage
SD	N	Cobalt	mg/kg	12	12	100%	9	5.683333333	Approximate Normal	9.273	95% UTL with 95% Coverage
SD	N	Copper	mg/kg	12	12	100%	21.6	12.575	Normal	25.97	95% UTL with 95% Coverage
SD	N	Iron	mg/kg	12	12	100%	11400	7590.833333	Normal	12333	95% UTL with 95% Coverage
SD	N	Lead	mg/kg	12	12	100%	69.4	32.125	Normal	72.91	95% UTL with 95% Coverage
SD	N	Magnesium	mg/kg	12	12	100%	3330	2440.833333	Normal	4217	95% UTL with 95% Coverage
SD	N	Manganese	mg/kg	12	12	100%	1270	654.9166667	Normal	1339	95% UTL with 95% Coverage
SD	N	Nickel	mg/kg	12	12	100%	19	13.95833333	Normal	22.2	95% UTL with 95% Coverage
SD	N	Potassium	mg/kg	12	11	92%	1640	925.4545455	Normal	2113	95% UTL with 95% Coverage
SD	N	Sodium	mg/kg	12	8	67%	544	183.325	Approximate Gamma	549.8	95% Approx. Gamma UTL with 95% Coverage (HW)
SD	N	Vanadium	mg/kg	12	12	100%	28.3	23.50833333	Normal	33.98	95% UTL with 95% Coverage
SD	N	Zinc	mg/kg	12	12	100%	89.6	49.55	Normal	97.62	95% UTL with 95% Coverage

Notes:
FOD = Frequency of Detection.
mg/kg = Milligram per kilogram.
NA = Not applicable.
SD = Sediment.
UTL = Upper Tolerance Limit.

APPENDIX E:

IDW DISPOSAL DOCUMENTATION

For:
Waste Connections - Turkey Creek Landfill
9100 S I-35 W
Alvarado TX 76009

THIRD PARTY AUTHORIZATION
for Special Waste Disposal

Date: 4 September 2020 through 21 November 2020
This authorization is valid until revoked in writing by the undersigned.

To Whom It May Concern:

Please be advised that the following company/individual has been appointed to work as our agent for purposes of managing waste materials that we may generate.

Name of Authorized Agent: Jason Stroup	Title: Scientist
Name of Company: EA Engineering, Science, and Technology, Inc, PBC.	Telephone Number: 972-315-3922

The undersigned hereby warrants, covenants, and represents that the broker/individual listed above is the duly authorized agent of the undersigned and has full, express and complete authority to act on behalf of and bind the undersigned, including, without limitation:

(1) Complete and sign Special Waste Profile(s);

(2) Complete and sign Special Waste Profile-Recertification(s);

(3) Authorize amendments to Special Waste Profile(s);

(4) Sign contracts to dispose and/or transport material;

(5) Sign certifications necessary to comply with landfill requirements; and

(6) Sign manifest to initiate shipment to disposal facilities.

Our authorized agent will notify us prior to any action stated above, and will provide us with copies of any documents bearing our name.

Name of Company: United States Environmental Protection Agency (EPA), Region 6	Mailing Address: 1201 Elm Street, Suite 500, Dallas, TX 75270-2102
Generator Contact (Print Name): Kenneth Shewmake.	Title: Remediation Project Manager
Signature KENNETH SHEWMAKE Digitally signed by KENNETH SHEWMAKE DN: c=US, o=U.S. Government, ou=Environmental Protection Agency, cn=KENNETH SHEWMAKE, 0.9.2342.19200300.100.1.1=68001003655732 Date: 2020.09.08 15:14:51 -05'00'	Telephone Number: (214) 665-3198

Waste Stream Name: IDW Soil Cuttings

ID: 2167335e-e365-4c60-a9e1-e8e58af50d8a

WASTE CONNECTIONS
Connect with the Future

Approval Status: Draft

WASTE STREAM DETAILS

Generator

Name: USEPA/Lane Plating Works, Inc. Superfund Site - USEPA/Lane Plating Works, Inc. Superfund Site

Address: 5322 Bonnie View Road City: Dallas State: TX Postal Code: 75241

County: Dallas Phone: (972) 315-3922

Service Provider

Name: Sunbelt Industrial Services - Sunbelt Industrial Services

Address: 2425 Parker Road, Building 3B City: Carrollton State: TX Postal Code: 75010

Phone:

Transporter

Name: Sunbelt Industrial Services - Sunbelt Industrial Services

Address: 2425 Parker Road, Building 3B City: Carrollton State: TX Postal Code: 75010

Phone:

Permit #: Expires At:

Billing

Name: Sunbelt Industrial Services - Sunbelt Industrial Services

Address: 2425 Parker Road, Building 3B City: Carrollton State: TX Postal Code: 75010

Phone:

Facility

Name: Waste Connections - Turkey Creek Landfill

Address: 9100 S I-35 W City: Alvarado State: TX Postal Code: 76009

Phone:

WASTE DESCRIPTION

Waste Stream Name: IDW Soil Cuttings

EPA Hazardous? ○ Yes ◉ No

DOT Hazardous Waste? ○ Yes ◉ No

State Hazardous Waste? ○ Yes ◉ No

Non-hazardous due to treatment, delisting, or exclusion? ○ Yes ◉ No

From an industry regulated under Benzene NESHAP ○ Yes ◉ No

Regulated, Licensed or NORM Radioactive Waste ○ Yes ◉ No

Contains PCBs ○ Yes ◉ No

Regulated and/or Untreated Medical/Infectious Waste ○ Yes ◉ No

Contains Asbestos ○ Yes ◉ No

Subject to RCRA Subpart CC controls ○ Yes ◉ No

Shipping Description: Non-Regulated Solids

MATERIAL DETAILS

Is this an Industrial Waste Stream? ○ Yes ◉ No

Common Name: IDW Soil Cuttings

Generation Process: Investigation Derived Waste from Site Assessment of Former Electroplating Facility. Analytical is Included with this Profile.

Preferred Disposal Methods: H132

Source of Contamination: Monitoring Wells

MATERIAL COMPOSITION

Constituents

Constituent: Soil 99 TO 100

Color: Brown

Physical state at 70° F: (●) Solid ( ) Liquid ( ) Sludge ( ) Dust ( ) Other

Free Liquid Range % TO %

pH TO

Strong Odor No

Describe Odor

Reactivity No Reactivity Explanation

Flash Point: ( ) < 140°F ( ) 140°F - 199°F ( ) ≥ 200°F (●) N/A

EPA HAZARDOUS INFORMATION

Please complete this section if you answered **Yes** to *EPA Hazardous?*

Characteristic Waste

Characteristic PPM (MG/KG)

Listed Codes

Is this material subject to the Alternative DEBRIS standards (40 CFR 268.45)? ( ) Yes ( ) No

Is this material subject to the Alternative SOIL standards (40 CFR 268.49)? ( ) Yes ( ) No

Underlying Hazardous Constituents

Constituent:

Is this material exempt from subpart CC controls (40 CFR 264.1083)? ( ) Yes ( ) No

If **Yes**

( ) Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c) or (c)(4))

( ) Waste contains VOCs that average <500 ppmw (40 CFR 264.1082(c)(1)). [Will require annual update]

NON-EPA HAZARDOUS INFORMATION

Please complete this section if you answered **No** to *EPA Hazardous?*

[ ] Process Knowledge

if **Yes**, Process Details

[ ] SDS

[x] Certified Analytical Sample

Is the data derived from testing a representative sample in accordance with 40 CFR 261 and/or other applicable laws?

(●) Yes ( ) No

If **Yes**, Type of Analytical Sample: (●) Composite ( ) Grab Sample ID #: 2045779 Full Report & 2086788 Full Report

[ ] Exempt Waste

Applicable Exempt Waste Item:

( ) UST Corrective Action - 40 CFR 261.4 (b)(10) ( ) PCB Bulk Product Waste - 40 CFR 761.62

( ) Oil & Gas E&P Waste - 40 CFR 261.4 (b)(5) ( ) RCRA-Empty Containers - 40 CFR 261.7 ( ) Other

If **Other**, Provided reference: 2045779 Full Report & 2086788 Full Report

NON-HAZARDOUS WASTE

Please complete this section if you answered **Yes** to *Non-hazardous due to treatment, delisting, or exclusion?*

( ) Delisted Hazardous Waste

( ) Treated Hazardous Waste Debris

( ) Excluded Waste under 40 CFR 261.4

If Excluded Waste, Specify Exclusions

( ) Treated Characteristic Hazardous Waste

STATE HAZARDOUS WASTE

Please complete this section if you answered **Yes** to *State Hazardous Waste?*

State Waste Codes: CESQ3011

BENZENE

Please complete this section if you answered **Yes** to *From an industry regulated under Benzene NESHAP?*

Are you a TSDF? ○ Yes ○ No

If **Yes**, Please complete the Benzene NESHAP questionnaire.

If **No**,

Does this material contain benzene? ○ Yes ○ No

If **Yes**, Flow Weighted Average Concentration in PPMW _____

What is your current facility's total annual benzene quantity in megagrams?

○ Less than (<) 1 Mg

○ 1 - 9.99 Mg

○ More than (>) 10 Mg

Is this waste soil from a remediation? ○ Yes ○ No

If **Yes**, Benzene Concentration in PPMW _____

Does the waste contain more than (>) 10% water/moisture? ○ Yes ○ No

Has material been treated to remove 99% of the benzene or to achieve less than 10ppmw? ○ Yes ○ No

Is material exempt from controls in accordance with 40 CFR 61.342? ○ Yes ○ No

If **Yes**, Specify Exemption _____

Is this waste stream subject to treatment and control requirements of 40 CFR Part 61, Subpart FF? ○ Yes ○ No

FACILITY REMEDIATION & CLEAN UP

Facility remediation subject to 40 CFR 63 GGGGG? ○ Yes ◉ No

If **Yes**, Does the material contain less than (<) 500 ppmw VOHAPS at the point of determination? ○ Yes ○ No

CERCLA or State-Mandated clean-up? ○ Yes ◉ No

If **Yes**, Please submit the Record of Decision or other documentation to assist others in the evaluation for proper disposal.

RADIOACTIVE WASTE

If you answered **Yes** to *Regulated, Licensed or NORM Radioactive Waste?*, please complete this section.

Identify Isotopes and pCI/g

Isotope _____ PCI/G _____

PCBS

Please complete this section if you answered **Yes** to *Contains PCBs?*

Regulated by 40 CFR 761? ○ Yes ○ No

Remediation under 40 CFR 761.61 (a)? ○ Yes ○ No

PCB imported into the US? ○ Yes ○ No

ASBESTOS

Please complete this section if you answered **Yes** to *Contains Asbestos?*

Is the Asbestos Friable or Non-Friable? ○ Friable ○ Non-Friable ○ Non-Friable regulated

SHIPPING INFORMATION

Event Frequency ◉ One Time ○ On-Going

Anticipated Number of Loads 1

Estimated Annual Qty 21

Unit of Measure ○ Tons ○ Yards ◉ Drums ○ Gallons ○ Other _____

Shipping Frequency ◉ Once ○ Daily ○ Weekly ○ Monthly ○ Other _____

Qty Per Shipment 21

Container Type DM

Container Size 55 Gallons

PROFILE CERTIFICATION

I hereby certify that (1) all information submitted on this form and on supplemental materials is complete and accurate to the best of my knowledge and ability to determine; (2) the information provided herein, including any supplemental information, such as laboratory analytical, MSDS, etc., accurately describes the waste stream to be delivered to the facility and that all known or suspected hazards have been disclosed. I understand that, once the waste stream is approved by Destination Facility based on this information, any deviation in the source, composition, constituents or characteristics of the waste stream from the information described herein, may render the waste stream unacceptable for disposal, at the sole discretion of Destination Facility. I further understand that any deviation from the information contained herein will require immediate notification to the Destination Facility and cessation of disposal.

Signature	
Printed Name	Jason Stroup on behalf of the USEPA Region 6
Date	9/10/2020
Company	EA Engineering, Science, and Technology, Inc., PBC
Title	Scientist

Waste Stream Name: IDW Purge Water

ID: 7ab16f30-eb27-4ff3-a91c-7ac3be5b60f2

WASTE CONNECTIONS
Connect with the Future

Approval Status: Draft

WASTE STREAM DETAILS

Generator

USEPA/Lane Plating Works, Inc. Superfund Site - USEPA/Lane

Name: Plating Works, Inc. Superfund Site

Address: 5322 Bonnie View Road City: Dallas State: TX Postal Code: 75241

County: Dallas Phone: (972) 315-3922

Service Provider

Name: Sunbelt Industrial Services - Sunbelt Industrial Services

Address: 2425 Parker Road, Building 3B City: Carrollton State: TX Postal Code: 75010

Phone:

Transporter

Name: Sunbelt Industrial Services - Sunbelt Industrial Services

Address: 2425 Parker Road, Building 3B City: Carrollton State: TX Postal Code: 75010

Phone:

Permit #: Expires At:

Billing

Name: Sunbelt Industrial Services - Sunbelt Industrial Services

Address: 2425 Parker Road, Building 3B City: Carrollton State: TX Postal Code: 75010

Phone:

Facility

Name: Waste Connections - Turkey Creek Landfill

Address: 9100 S I-35 W City: Alvarado State: TX Postal Code: 76009

Phone:

WASTE DESCRIPTION

Waste Stream Name: IDW Purge Water

EPA Hazardous? ○ Yes ◉ No

DOT Hazardous Waste? ○ Yes ◉ No

State Hazardous Waste? ○ Yes ◉ No

Non-hazardous due to treatment, delisting, or exclusion? ○ Yes ◉ No

From an industry regulated under Benzene NESHAP ○ Yes ◉ No

Regulated, Licensed or NORM Radioactive Waste ○ Yes ◉ No

Contains PCBs ○ Yes ◉ No

Regulated and/or Untreated Medical/Infectious Waste ○ Yes ◉ No

Contains Asbestos ○ Yes ◉ No

Subject to RCRA Subpart CC controls ○ Yes ◉ No

Shipping Description: Non-Regulated Liquids

MATERIAL DETAILS

Is this an Industrial Waste Stream? ○ Yes ◉ No

Common Name: IDW Purge Water

Generation Process: Investigation Derived Waste from Site Assessment of Former Electroplating Facility. Analytical is Included with this Profile.

Preferred Disposal Methods: NH003

Source of Contamination: Monitoring Wells

MATERIAL COMPOSITION

Constituents

Constituent: Water 99 TO 100

Color: Clear

Physical state at 70° F: ○ Solid ◉ Liquid ○ Sludge ○ Dust ○ Other

Free Liquid Range 100% TO 100%

pH 7 TO 7.5

Strong Odor No

Describe Odor

Reactivity No Reactivity Explanation

Flash Point: ○ < 140°F ○ 140°F - 199°F ◉ ≥ 200°F ○ N/A

EPA HAZARDOUS INFORMATION

Please complete this section if you answered **Yes** to *EPA Hazardous?*

Characteristic Waste

Characteristic PPM (MG/KG)

Listed Codes

Is this material subject to the Alternative DEBRIS standards (40 CFR 268.45)? ○ Yes ○ No

Is this material subject to the Alternative SOIL standards (40 CFR 268.49)? ○ Yes ○ No

Underlying Hazardous Constituents

Constituent:

Is this material exempt from subpart CC controls (40 CFR 264.1083)? ○ Yes ○ No

If **Yes**

○ Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c) or (c)(4))

○ Waste contains VOCs that average <500 ppmw (40 CFR 264.1082(c)(1)). [Will require annual update]

NON-EPA HAZARDOUS INFORMATION

Please complete this section if you answered **No** to *EPA Hazardous?*

☐ Process Knowledge

if **Yes**, Process Details

☐ SDS

☑ Certified Analytical Sample

Is the data derived from testing a representative sample in accordance with 40 CFR 261 and/or other applicable laws?

◉ Yes ○ No

If **Yes**, Type of Analytical Sample: ◉ Composite ○ Grab Sample ID #: 2046341 Full Report & 2086787 Full Report

☐ Exempt Waste

Applicable Exempt Waste Item:

○ UST Corrective Action - 40 CFR 261.4 (b)(10) ○ PCB Bulk Product Waste - 40 CFR 761.62

○ Oil & Gas E&P Waste - 40 CFR 261.4 (b)(5) ○ RCRA-Empty Containers - 40 CFR 261.7 ○ Other

If **Other**, Provided reference: 2046341 Full Report & 2086787 Full Report

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○ Delisted Hazardous Waste

○ Treated Hazardous Waste Debris

○ Excluded Waste under 40 CFR 261.4

If Excluded Waste, Specify Exclusions

○ Treated Characteristic Hazardous Waste

STATE HAZARDOUS WASTE

Please complete this section if you answered **Yes** to *State Hazardous Waste?*

State Waste Codes: CESQ1191

BENZENE

Please complete this section if you answered **Yes** to *From an industry regulated under Benzene NESHAP?*

Are you a TSDF? ○ Yes ○ No

If **Yes**, Please complete the Benzene NESHAP questionnaire.

If **No**,

Does this material contain benzene? ○ Yes ○ No

If **Yes**, Flow Weighted Average Concentration in PPMW _____

What is your current facility's total annual benzene quantity in megagrams?

○ Less than (<) 1 Mg

○ 1 - 9.99 Mg

○ More than (>) 10 Mg

Is this waste soil from a remediation? ○ Yes ○ No

If **Yes**, Benzene Concentration in PPMW _____

Does the waste contain more than (>) 10% water/moisture? ○ Yes ○ No

Has material been treated to remove 99% of the benzene or to achieve less than 10ppmw? ○ Yes ○ No

Is material exempt from controls in accordance with 40 CFR 61.342? ○ Yes ○ No

If **Yes**, Specify Exemption _____

Is this waste stream subject to treatment and control requirements of 40 CFR Part 61, Subpart FF? ○ Yes ○ No

FACILITY REMEDIATION & CLEAN UP

Facility remediation subject to 40 CFR 63 GGGGG? ○ Yes ◉ No

If **Yes**, Does the material contain less than (<) 500 ppmw VOHAPS at the point of determination? ○ Yes ○ No

CERCLA or State-Mandated clean-up? ○ Yes ◉ No

If **Yes**, Please submit the Record of Decision or other documentation to assist others in the evaluation for proper disposal.

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If you answered **Yes** to *Regulated, Licensed or NORM Radioactive Waste?*, please complete this section.

Identify Isotopes and pCI/g

Isotope _____ PCI/G _____

PCBS

Please complete this section if you answered **Yes** to *Contains PCBs?*

Regulated by 40 CFR 761? ○ Yes ○ No

Remediation under 40 CFR 761.61 (a)? ○ Yes ○ No

PCB imported into the US? ○ Yes ○ No

ASBESTOS

Please complete this section if you answered **Yes** to *Contains Asbestos?*

Is the Asbestos Friable or Non-Friable? ○ Friable ○ Non-Friable ○ Non-Friable regulated

SHIPPING INFORMATION

Event Frequency ◉ One Time ○ On-Going

Anticipated Number of Loads 1

Estimated Annual Qty 14

Unit of Measure ○ Tons ○ Yards ◉ Drums ○ Gallons ○ Other _____

Shipping Frequency ◉ Once ○ Daily ○ Weekly ○ Monthly ○ Other _____

Qty Per Shipment 14

Container Type DM

Container Size 55 Gallons

PROFILE CERTIFICATION

I hereby certify that (1) all information submitted on this form and on supplemental materials is complete and accurate to the best of my knowledge and ability to determine; (2) the information provided herein, including any supplemental information, such as laboratory analytical, MSDS, etc., accurately describes the waste stream to be delivered to the facility and that all known or suspected hazards have been disclosed. I understand that, once the waste stream is approved by Destination Facility based on this information, any deviation in the source, composition, constituents or characteristics of the waste stream from the information described herein, may render the waste stream unacceptable for disposal, at the sole discretion of Destination Facility. I further understand that any deviation from the information contained herein will require immediate notification to the Destination Facility and cessation of disposal.

Signature	
Printed Name	Jason Stroup on behalf of the USEPA Region 6
Date	9/10/2020
Company	EA Engineering, Science, and Technology, Inc., PBC
Title	Scientist

Order #: 215002

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of 1
3. Emergency Response Phone: 972-492-6108
4. Manifest Tracking Number: 022199501 JJK

5. Generator's Name and Mailing Address
USEPA/Lone Pining Works, Inc. Superfund Site
403 S. Highway 121, Building C, Suite 100
Lewisville, TX 75067
Generator's Phone: 972-315-3922

Generator's Site Address (if different than mailing address)
5322 Bonnie View Road
Dallas, TX 75241

6. Transporter 1 Company Name
Sunbelt Industrial Services - Carrollton
Ph#: 972-492-6108
State ID#: 96076
U.S. EPA ID Number: TXR000083462

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Waste Connections Turkey Creek Landfill
9100 South I-35W
Alvarado, TX 76009
Facility's Phone: 817-790-0311
State ID#: TX-
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NONRCRA / NONDOT REGULATED MATERIAL (IDW Soil Cuttings)	21	DM	9000	P	
	2. NONRCRA / NONDOT REGULATED MATERIAL (IDW Purge Water)	14	DM	6000	P	
	3.					
	4.					

14. Special Handling Instructions and Additional Information
01: IDW Soil Cuttings (PF: TC1-20-1774) 21 @ 9000
02: IDW Purge Water (PF: TC1-20-1775) 14 @ 6000

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Jason Struck EA signed on behalf of USEPA Region 6
Signature:
Month 09 Day 17 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Allen Krause
Signature: Allen Krause
Month 09 Day 17 Year 2020
Transporter 2 Printed/Typed Name: Kyle Patterson
Signature:
Month 9 Day 23 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Chris Hunt
Signature:
Month 9 Day 23 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

TRANSPORTER COPY

APPENDIX F:

CUSTOM SOIL RESOURCE REPORT

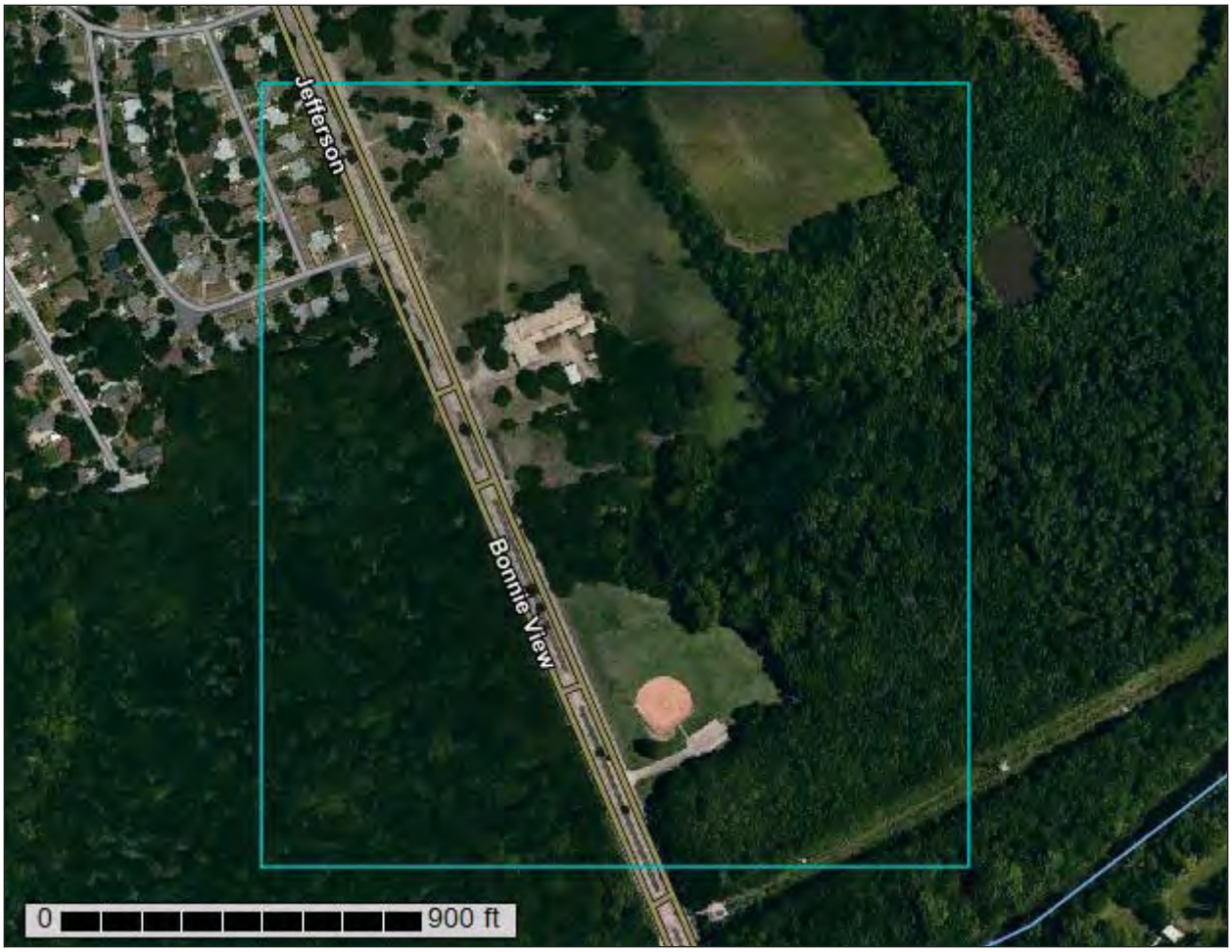
United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Dallas County, Texas

Lane Plating



October 9, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:4,160 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dallas County, Texas
Survey Area Data: Version 17, Sep 12, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 19, 2018—Jul 22, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
37	Frio silty clay, 0 to 1 percent slopes, frequently flooded	35.9	45.6%
38	Frio-Urban land complex, frequently flooded	24.2	30.8%
49	Lewisville-Urban land complex, 0 to 4 percent slopes	9.2	11.7%
50	Lewisville-Urban land complex, 4 to 8 percent slopes	9.4	11.9%
Totals for Area of Interest		**78.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Dallas County, Texas

37—Frio silty clay, 0 to 1 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 2wg92
Elevation: 330 to 770 feet
Mean annual precipitation: 37 to 42 inches
Mean annual air temperature: 64 to 65 degrees F
Frost-free period: 245 to 252 days
Farmland classification: Not prime farmland

Map Unit Composition

Frio, frequently flooded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Frio, Frequently Flooded

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Calcareous clayey alluvium derived from mudstone and/or calcareous loamy alluvium derived from mudstone

Typical profile

Ap - 0 to 6 inches: silty clay
A - 6 to 50 inches: silty clay
Bk - 50 to 80 inches: silty clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C
Ecological site: Loamy Bottomland (R086AY012TX)
Hydric soil rating: No

Minor Components

Tinn, frequently flooded

Percent of map unit: 8 percent
Landform: Flood plains, flood plains
Landform position (three-dimensional): Tread
Microfeatures of landform position: Circular gilgai
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Clayey Bottomland (R086AY013TX)
Hydric soil rating: No

Gladewater, frequently flooded

Percent of map unit: 2 percent
Landform: Flood plains, flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Clayey Bottomland (R086AY013TX)
Hydric soil rating: Yes

38—Frio-Urban land complex, frequently flooded

Map Unit Setting

National map unit symbol: d7md
Elevation: 0 to 4,000 feet
Mean annual precipitation: 8 to 60 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 180 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Frio and similar soils: 70 percent
Urban land: 15 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Frio

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium of holocene age derived from mixed sources

Typical profile

H1 - 0 to 53 inches: silty clay
H2 - 53 to 74 inches: silty clay loam
H3 - 74 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C
Ecological site: Loamy Bottomland (R086AY012TX)
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 40 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent
Hydric soil rating: No

49—Lewisville-Urban land complex, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: d7ms
Elevation: 0 to 4,000 feet
Mean annual precipitation: 8 to 60 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 180 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Lewisville and similar soils: 55 percent

Urban land: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lewisville

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Alluvium of quaternary age derived from mixed sources

Typical profile

H1 - 0 to 17 inches: silty clay
H2 - 17 to 42 inches: silty clay
H3 - 42 to 75 inches: silty clay

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Available water storage in profile: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: Northern Clay Loam (R086AY006TX)
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 40 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent
Hydric soil rating: No

50—Lewisville-Urban land complex, 4 to 8 percent slopes

Map Unit Setting

National map unit symbol: d7mv
Elevation: 0 to 4,000 feet
Mean annual precipitation: 8 to 60 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 180 to 310 days
Farmland classification: Not prime farmland

Map Unit Composition

Lewisville and similar soils: 60 percent
Urban land: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lewisville

Setting

Landform: Stream terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Alluvium of quaternary age derived from mixed sources

Typical profile

H1 - 0 to 13 inches: silty clay
H2 - 13 to 47 inches: silty clay
H3 - 47 to 80 inches: silty clay

Properties and qualities

Slope: 4 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Available water storage in profile: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: Northern Clay Loam (R086AY006TX)
Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 40 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Hydric soil rating: No

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APPENDIX G:

LABORATORY DATABASE (on Data CD)

APPENDIX H:

RESPONSE TO COMMENTS

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26 October 2020

Mr. Kenneth Shewmake
Task Order Monitor
U.S. Environmental Protection Agency (EPA)
1201 Elm Street, Suite 500
Dallas, Texas, 75270-2102

RE: Response to Comments; Remedial Investigation Report, Revision 00
Lane Plating Works, Inc. Superfund Site
U.S. Environmental Protection Agency Region 6
Remedial Action Contract 2
Task Order: 68HE0618F0309
Contract: EP-W-06-004

Dear Mr. Shewmake:

EA Engineering, Science, and Technology, Inc., PBC (EA) has prepared the following response to comments relating to the Remedial Investigation Report, Revision 00. The responses are based on comments received from EPA on 31 August 2020, and from the Texas Commission on Environmental Quality (TCEQ) dated 6 August 2020 and 18 August 2020.

31 August 2020 EPA Comments

General Comments:

1. *The risk assessment documents defined the developed area as "the area of the site directly surrounding the buildings and located within the barbed-wire fence". We requested a figure to define this area. Based on the figures included in this document it appears the original inner fence was used instead of the fence the EPA installed. This may result in samples that should be considered developed area being included in the open area and this could increase the risk numbers for the open area. I would like to evaluate options for expanding the developed area to include some additional sample locations inside the EPA fence.*

   EA Response
   Comment noted. Per the 2 September 2020 call to discuss the Remedial Investigation (RI) Report comments, language has been added in the Human Health Risk Assessment (HHRA) describing the area between the barbed-wire fence and the EPA security fence. Where appropriate, EA has also added language in the Rl Report nature and extent discussions where figures illustrate the highest concentrations of compounds of potential concern (COPs) are located within the perimeter of the EPA security fence.

2. *The term Developed Area is potentially misleading and may be an issue when releasing information to the public. We discussed this issue previously but we would like to consider this issue again. We recommend the names Electroplating Area or Process Area.*

EA Response
The RI Report has been revised where the term Developed Area has been replaced with Process Area.

3. *The preliminary remediation goal for arsenic typically exceeds the background level and screening level. For example, the Texas Protective Concentration Levels (PCLs) for arsenic are 24 mg/kg and 200 mg/kg for the residential soil and industrial soil, respectively. The RI doesn't need any changes, this comment is intended for the Feasibility Study (FS) or Preliminary Remediation Goal (PRG) technical memorandum.*

EA Response
Comment noted.

4. *The "HHRA Summary of Results" was helpful in interpreting the human health risk assessment results and the ecological risk assessment would benefit from a comparable table.*

EA Response
A table has been created for COPCs and corresponding receptors that should be considered for ecological risk management. It has been included in the RI Report.

5. *The phrase " were within the EPA's acceptable cancer risk range" is used on pages 6-2, 6-3, and 8-4. It is incorrect to state that values in this range are "acceptable". Cancer risk values between $1X10^{-4}$ and $1X10^{-6}$ need to be considered when developing remediation goals. A 1 X 10-4 risk level corresponds to the upper-end of EPA's generally acceptable risk range of $1X10^{-6}$ to 10^{-4} as discussed in the National Contingency Plan (NCP), 40 CFR 300.430 but remediation goals do not automatically use the upper end of the risk range by default.*

EA Response
Text in the HHRA Report and the RI Report has been revised per this comment.

Specific Comments:

6. *Page 3.6, Section 3.4.3 Hydraulic Gradients: The perched groundwater zone appears to require further characterization to the southwest of the site. This further characterization will assure that the extent of the chromium plume in the perched aquifer has been fully characterized.*

EA Response
This condition has been included as a data gap in section 8 of the RI Report.

7. *Page 3.6, Section 3.4.4 Groundwater Use: The groundwater wells with the potential for human consumption within the vicinity of the site should be displayed on a map (additional figure).*

EA Response
As requested, a figure has been included in the RI Report that was adapted from the TCEQ Preliminary Assessment Report that illustrates these well locations.

8. *Page 5-2, Section 5.1.3 Nature and Extent of Contamination: The EPA Ecological Risk Assessment Guidance should be referenced in addition to the human health guidance (EPA 1989). Nature and extent also will be defined by the ecological risk assessment.*

EA Response
The reference has been added to the RI Report.

9. *Page 6-2, Section 6 Human Health Risk assessment, last paragraph: The text makes the following statement. "The HHRA did not reveal any concerns for receptors' exposure to soil within the Open Area" This is not true as some results were in the cancer risk range and noncarcinogenic hazards were slightly over 1. More detail is needed on the Open Area.*

EA Response
Text in the HHRA Report and the RI Report has been revised per this comment.

10. *Page 6-3, Section 6.2, groundwater: Consider specifying that groundwater is shallow groundwater in the perched zone when making statements like "Concentrations of hexavalent chromium revealed significant risk concerns for groundwater as a tap water supply". It could be confusing if people think this is referring to deeper aquifers. Also, this section should mention residents are on city water.*

EA Response
Text has been revised to state, *"Concentrations of hexavalent chromium revealed significant risk concerns for the perched groundwater zone as a tap water supply."*

The following text was also added at the end of this section: *"It is noted that the perched groundwater at the site is not considered a potential potable water supply source based upon aquifer conditions at the site. Additionally, potable water is supplied to the site and the surrounding area by the City of Dallas."*

11. *Page 7-2, Section 7.2 Summary of Potential Ecological Exposures: A summary table of the ecological risk assessment results comparable to the "HHRA Summary of Results" would be helpful.*

EA Response
A table has been created for COPCs and corresponding receptors that should be considered for ecological risk management. It has been included in the RI Report.

12. *Page 8-6, Section 8.6: Typo in first sentence of second bullet. "There are not offsite monitoring wells to the west and south of the site."*

    EA Response
    Text has been revised to state: *"There are no offsite monitoring wells to the west and south of the site."*

13. *Figure 1-3: Please confirm the areas marked on this figure are correct. If sample locations included in the developed area are outside the fence they should be shaded.*

    EA Response
    Figure 1-3 has been revised so the boundary of the Process Area exposure area includes all the soil sample locations that were grouped for this exposure area.

18 August 2020 Texas Commission on Environmental Quality Comments

General Comments

1. *The RI indicates that monitoring wells MW-08 and ACMW-02 were dry upon installation. However, based on the information depicted on Cross Section A-A', it appears that the screened intervals for these wells is not deep enough to encounter the top of the water table. The TCEQ recommends that a deeper well be installed in this area to better characterize the underlying aquifer conditions and provide lateral delineation of the groundwater contamination.*

   EA Response
   Comment noted. The contract for the RI ends in November 2020. Any additional work will need to be done during the Feasibility Study (FS) under the new contract. This item will be identified as a possible data gap to be considered for evaluation during the FS.

2. *It would be beneficial to illustrate Stream 5A2 and the unnamed stream on the two cross sections in order to better understand where and how groundwater may discharge to surface water.*

   EA Response
   The cross sections (Figures 3-1 and 3-2) have been revised as requested.

3. *Based on the information contained in the RI, it does not appear that any aquifer testing has been performed. The TCEQ recommends that the EPA conduct an aquifer test(s) to classify the uppermost groundwater bearing unit in accordance with the Texas Risk Reduction Program (TRRP). The results of these tests will also allow the EPA to determine whether a groundwater remedy is necessary and/or whether additional assessment/delineation of chemicals of potential concern (COPCs) in groundwater is*

required. The procedures outlined in the TCEQ Regulatory Guidance Document RG-366/TRRP-8, which can be obtained at https://www.tceq.texas.gov/assets/public/comm_exec/pubs/rg/rg-366-trrp- 08.pdf, are acceptable methods for classifying groundwater under TRRP. The TCEQ recommends that the aquifer testing be performed prior to any additional soil sampling in order to inform the extent to which the soil-to-groundwater pathway should be evaluated.

EA Response
Comment noted. The contract for the RI ends in November 2020. Any additional work will need to be done during the FS under the new contract. This item will be identified as a possible data gap to be considered for evaluation during the FS.

4. *The RI does not include an evaluation of cross-media pathways, such as COPCs in soil leaching to groundwater and COPCs in groundwater discharging to surface water. In the absence of this information, the TCEQ is unable to fully understand the extent to which source material could contribute to groundwater or surface water. As such, the TCEQ cannot evaluate the long-term protectiveness of groundwater or surface water without additional information. The TCEQ recommends that the EPA quantify the concentration of COPCs that can remain in soil and groundwater that will be protective of groundwater and surface water, if these cross-media pathways are determined to be complete. If this evaluation is not planned to be performed as part of the RI, then the TCEQ requests that the EPA provide a timeframe as to when this evaluation is anticipated to be performed.*

EA Response
Section 5.7 (Contamination Migration Pathways) has been revised to further discuss the two pathways identified in the above comment:

- ***"Leaching to Groundwater—****As water percolates from the surface, particularly in the Process Area, through vadose zone soil to the underlying perched groundwater, it carries dissolved phase constituents. Additionally, where present, source material in contact with groundwater can leach directly to the perched groundwater. This is a complete pathway that has led to the formation of the groundwater plumes associated with the site. The TCEQ Residential Soil 0.5 acre source area* $^{GW}Soil_{Ing}$ *PCLs for total chromium and hexavalent chromium are 2,400 mg/kg and 28 mg/kg, respectively for class 1 and 2 groundwater resources. These PCLs will be considered once groundwater classification has been completed and during development of preliminary remediation goals when the FS is being completed.*

- ***Groundwater Transport—****As groundwater moves downgradient through the saturated zone, it can carry dissolved phase constituents. Based on data collected during the RI, this is a complete but insignificant pathway at the site. Data supports that groundwater and surface water are in communication with each other on the east part of the site abutting Stream 5A2, which is a perennial surface water feature. Based on the potentiometric groundwater surface and distribution of COPCs in the perched groundwater zone, groundwater is migrating in a southwest and south direction away from Stream 5A2 and toward the unnamed stream. During the RI, the unnamed*

stream contained water only during and immediately following heavy rain events, which supports the site's groundwater is not discharging directly into this surface water feature. In addition, the distribution of site COPCs do not support a significant groundwater to surface water pathway. Hexavalent chromium, chromium are groundwater COPCs for the site, but these metals were not detected in surface water samples collected during the RI. In addition, lead in surface water was identified as possible human health COPC due to ingestion of fish; however, lead was not detected in groundwater samples collected at the site during the RI. As such, the lead detected in surface water is not site-related."

5. *It is noted that some of the calculated site-specific background concentrations are less than the Texas-Specific Median Background (TSMB) concentrations found in TRRP. In these instances, the TCEQ would allow the use of the TSMB as the background concentration for the site.*

EA Response

Comment noted. The site site-specific background concentrations were developed based on collection of surface and subsurface background soil samples taken from an offsite location that has the same soil type that is consistent with soil type located on the south and east portions of the site. It was noted during development of these site-specific background concentrations that some of these values were lower that published values for both Texas and Dallas County. However, a decision was made to go consistently with the site-specific background concentrations so no issues would possibly arise relating to "selectively picking" background values for this particular site. In addition, these same values were used for the risk assessments, which have been finalized. As such, use of Texas-Specific Median Background values versus those developed specifically for the site will create inconsistencies between the risk assessments and the RI Report. If determined necessary, use of the Texas-Specific Median Background concentrations can be considered during the FS and Preliminary Remediation Goal development.

6. *The residential and industrial Regional Screening Levels (RSLs) used in the RI for comparison to concentrations of COPCs in subsurface soil are based on direct contact. Please note that the TCEQ does not consider this pathway complete for soils deeper than 5 feet below ground surface (bgs) for commercial/industrial land use.*

EA Response

Comment Noted.

Specific Comments

7. *Section 2.2.1.4 of the RI incorrectly references Table 2-6 for a summary of the groundwater samples collected during the RI. Please note that this reference should instead be for Table 2-7.*

EA Response
Revision has been made.

8. Section 3.4.2 incorrectly references collocated wells MW-10/ACMW-03. Please note that this reference should instead be for MW-10/ACMW-04.

EA Response
Revision has been made.

9. Section 5.2 of the RI states that contaminated soil is located underneath the on-site building. However, the soils underneath the on-site building have not been sampled. It would be beneficial to include an explanation in the RI of how it was concluded that the soil underneath the on-site building is contaminated. Additionally, the TCEQ recommends that the EPA collect samples and characterize the soil underlying the on-site building(s) in order to quantify the exposure risks assumed to be present underneath the building, especially if the building and underlying soils will not be included in a subsequent remedial action.

EA Response
Text has been expanded under Section 5-2 to include the following text: "*Based on the findings of the RI, elevated levels of impacted surface and subsurface soil were detected around all four sides of the main building. In addition, the subsurface sumps located inside were historically used for electroplating operations for approximately 90 years until 2015. Given their age, the integrity of these sumps is questionable.*"

In addition, the contract for the RI ends in November 2020. Any additional work will need to be done during the FS under the new contract. This item will be identified as a possible data gap to be considered for evaluation during the FS.

10. *In Section 5.3.1.4, it would be helpful to include a statement in the Summary section that clarifies that since the calculated site-specific background concentration of arsenic is greater than the residential and industrial RSLs, the green area in Figure 5-20 encompasses exceedances of the residential RSL, industrial RSL, and background.*

EA Response
The text has been revised to state: *"The green area corresponds with exceedances greater than calculated site-specific background concentration of 6.305 mg/kg., as well as the Residential Soil RSL of 0.68 mg/kg, and the Industrial Soil RSL of 3 mg/kg. "*

11. *Section 5.4.1 of the RI states that lead in surface water was compared to the TCEQ surface water quality criteria for ingestion of fish only. However, the Human Health Risk Assessment indicated that the EPA included certain exposure pathways associated with contact recreation, such as incidental ingestion of surface water and dermal contact with surface water, as part of the evaluation of surface water exposure*

parameters. Therefore, this Section, as well as any other affected Sections, should be revised to incorporate contract recreation as an open exposure pathway.

EA Response

In conferring with EA's human health risk assessor that prepared the HHRA, ingestion of fish was identified as the risk driver for surface water, and contact recreation was not an issue. Based on this conversation with EA's human health risk assessor, the language in the RI Report is correct and consistent with what is stated in the HHRA Report.

12. *Figures 5-34 and 5-35 appear to illustrate data gaps in the delineation of arsenic in subsurface soil from 2-5 feet below ground surface (bgs) and 5-10 feet bgs adjacent to Bonnie View Road and to the south of the barbed wire fence. Additional soil sampling in these areas should be considered in order to address these potential data gaps.*

EA Response

Comment noted. The contract for the RI ends in November 2020. Any additional work will need to be done during the FS under the new contract. This item will be identified as a possible data gap to be considered for evaluation during the FS.

6 August 2020 TCEQ Comments

Comments

13. General – The RI includes a summary of results from the Tier 2 SLERA[1] (EA, 2020b). Several comments previously made on the SLERA requested a response (TCEQ, 2020), and the responses may also entail parallel edits to the Ecological Risk Assessment section of the RI.

EA Response

Comment noted. Revisions made to the Revision 01 Ecological Risk Assessment conclusions have also been incorporated into Section 7 of the RI Report.

14. Delineation – Several figures (especially figures 5-5, 5-10, 5-15, and 5-21) show ecological benchmark exceedances for soil, and in some cases, to the edge of the sampling boundary. However, the comparison of site concentrations to benchmarks is regarded as a conservative initial step in a SLERA, with opportunities for refined assumptions later on. It is recommended that the RI eventually include similar figures to account for refined assumptions and final wildlife PCLs. Similar figures are also suggested for sediment, surface water, and related pathways (see comment 3) as appropriate. Typically, refined/less- conservative assumptions result in a smaller area of concern by the conclusion of a SLERA.

EA Response

Comment noted. Refinement of areas that need to be addressed will be completed during the FS when Preliminary Remediation Goals are developed.

15. Groundwater-to-surface-water and -sediment (^{SW}GW, ^{Sed}GW) pathways – If possible, site representatives should clarify whether these pathways are complete. The ecological conceptual site model (Figure 6-2) currently identifies the ^{SW}GW pathway as a "potential" pathway.

    Note that 30 TAC 350.51(f) states: "[t]he person shall use concentrations measured in groundwater at or immediately upgradient of the zone of groundwater discharge to surface water to determine if COCs in groundwater have discharged to surface waters." More information on this process can be found in TRRP-15eco section 5 (TCEQ, 2013). An evaluation of ^{SW}GW and ^{Sed}GW PCLs against groundwater data should also consider any data directly from surface water and sediment samples.

    EA Response
    Comment noted. Please see EA Response to TCEQ Comment 4.

EA Engineering, Science, and Technology, Inc., PBC

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9 November 2020

Mr. Kenneth Shewmake
Task Order Monitor
U.S. Environmental Protection Agency (EPA)
1201 Elm Street, Suite 500
Dallas, Texas, 75270-2102

RE: Response to Comments; Remedial Investigation Report, Revision 01
Lane Plating Works, Inc. Superfund Site
EPA Region 6
Remedial Action Contract 2
Task Order: 68HE0618F0309
Contract: EP-W-06-004

Dear Mr. Shewmake:

EA Engineering, Science, and Technology, Inc., PBC (EA) has prepared the following response to comments relating to the Remedial Investigation Report, Revision 01. The responses are based on comments received from the Texas Commission on Environmental Quality (TCEQ) dated 30 October 2020.

30 October 2020 TCEQ Comments

General Comments:

1. *The TCEQ understands that comment nos. 1, 3, 4, 9, 12, 14, and 15 made in our letter dated August 18, 2020, will be identified as possible data gaps to be considered for evaluation during the Feasibility Study. The TCEQ accepts this response and looks forward to discussing these issues with the EPA during the Feasibility Study.*

   EA Response
   Comment noted.

2. *Sections 6.2 and 8.5.2 were revised to state: "It is noted that the perched groundwater at the site is not considered a potential potable water supply source based upon aquifer conditions at the site." Since aquifer testing has not yet been performed to determine the usability of groundwater at the site, the TCEQ requests that this statement be deleted or revised to indicate that the perched groundwater at the site may not be considered a potential water supply source, however, aquifer testing needs to be conducted to further evaluate these conditions.*

   EA Response
   Comment noted. The text has been removed from Sections 6.2 and 8.5.2 as requested.

ATTACHMENT 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 Elm Street, SUITE 500
DALLAS, TX 75270

July 22, 2022

MEMORANDUM

Subject: Lane Plating Indoor Air Metals Sampling Results

From: Chelsea Hidalgo and Jon Rauscher
Toxicologists

To: Eric Delgado
On-Scene Coordinator

Kenneth Shewmake
Remedial Project Manager

The memorandum provides a review of the air sampling results at the Lane Plating Superfund Site in Dallas, Dallas County, Texas. Air samples were collected from two locations inside the building and analyzed for metals, including hexavalent chromium. The results indicated unacceptable levels of hexavalent chromium, while all other metals were below available comparison levels.

Hexavalent chromium is the primary contaminant of concern and was found at concentrations of 18 and 8.2 $\mu g/m^3$. The EPA industrial Removal Management Levels (RMLs) for cancer and noncancer are 0.0012 and 0.1 $\mu g/m^3$ respectively. The results are elevated above worker protection values as well, including Occupational Safety and Health Administration Permissible Exposure Limits (OSHA PELs) (5 $\mu g/m^3$) and American Conference of Governmental Industrial Hygienists Threshold Limit Values (ACGIH TLVs) (0.2 $\mu g/m^3$).

Evidence of possible trespassing is apparent within the building. Risk estimates for an adult and adolescent trespasser were estimated using the same assumptions (see attachment) from the remedial investigation (RI) report. The risk estimate utilized the maximum hexavalent chromium concentration. For both an adult and adolescent, the noncancer hazard quotient (HQ) is 4.27 which exceeds the acceptable noncancer of HQ =1. For an adolescent (6-16 years) trespasser, lifetime excess cancer risk is estimated at 1.53E-02. The lifetime excess cancer risk estimate for an adult trespasser is 5.13E-03. Both the adolescent and adult trespasser exceed the acceptable excess cancer risk range of 1E-06 to 1E-04.

Chelsea Hidalgo

Chelsea Hidalgo
Toxicologist
USEPA Region 6, Superfund

Jon Rauscher

Jon Rauscher, PhD
Toxicologist
USEPA Region 6, Superfund

Site-specific Air Inputs

Adolescent Trespasser

Variable	Air Default Value	Site-Specific Value
ED_{res} (exposure duration) years	26	10
ED_{0-2} (mutagenic exposure duration first phase) years	2	0
ED_{2-6} (mutagenic exposure duration second phase) years	4	0
ED_{6-16} (mutagenic exposure duration third phase) years	10	10
ED_{16-26} (mutagenic exposure duration fourth phase) years	10	0
EF_{res} (exposure frequency) days/year	350	52
EF_{0-2} (mutagenic exposure frequency first phase) days/year	350	0
EF_{2-6} (mutagenic exposure frequency second phase) days/year	350	0
EF_{6-16} (mutagenic exposure frequency third phase) days/year	350	52
EF_{16-26} (mutagenic exposure frequency fourth phase) days/year	350	0
ET_{res} (exposure time) hours/day	24	4
ET_{0-2} (mutagenic exposure time first phase) hours/day	24	0
ET_{2-6} (mutagenic exposure time second phase) hours/day	24	0
ET_{6-16} (mutagenic exposure time third phase) hours/day	24	4
ET_{16-26} (mutagenic exposure time fourth phase) hours/day	24	0
THQ (target hazard quotient) unitless	1	1
LT (lifetime) years	70	70
TR (target risk) unitless	1.0E-04	1.0E-04

Site-specific

Removal Management Levels (RML) for Air

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user's guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	IUR $(ug/m^3)^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Carcinogenic SL TR=0.0001 (ug/m^3)	Noncarcinogenic SL THI=1 (ug or fibers/m^3)	Screening Level (ug or fibers/m^3)
Chromium(VI)	18540-29-9	Yes	No	Inorganics	8.40E-02	U	1.00E-04	U	1.17E-01	4.21E+00	1.17E-01 ca*

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Site-specific Risk for Air

Chemical	IUR $(ug/m^3)^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Concentration (ug or fibers/m^3)	Carcinogenic Risk	Noncarcinogenic HI
Chromium(VI)	8.40E-02	U	1.00E-04	U	1.80E+01	1.53E-02	4.27E+00
**Total Risk/HI*	-		-		-	*1.53E-02*	*4.27E+00*

Site-specific Air Inputs

Adult Trespasser

Variable	Air Default Value	Site-Specific Value
ED_{res} (exposure duration) years	26	10
ED_{0-2} (mutagenic exposure duration first phase) years	2	0
ED_{2-6} (mutagenic exposure duration second phase) years	4	0
ED_{6-16} (mutagenic exposure duration third phase) years	10	0
ED_{16-26} (mutagenic exposure duration fourth phase) years	10	10
EF_{res} (exposure frequency) days/year	350	52
EF_{0-2} (mutagenic exposure frequency first phase) days/year	350	0
EF_{2-6} (mutagenic exposure frequency second phase) days/year	350	0
EF_{6-16} (mutagenic exposure frequency third phase) days/year	350	0
EF_{16-26} (mutagenic exposure frequency fourth phase) days/year	350	52
ET_{res} (exposure time) hours/day	24	4
ET_{0-2} (mutagenic exposure time first phase) hours/day	24	0
ET_{2-6} (mutagenic exposure time second phase) hours/day	24	0
ET_{6-16} (mutagenic exposure time third phase) hours/day	24	0
ET_{16-26} (mutagenic exposure time fourth phase) hours/day	24	4
THQ (target hazard quotient) unitless	1	1
LT (lifetime) years	70	70
TR (target risk) unitless	1.0E-04	1.0E-04

Site-specific

Removal Management Levels (RML) for Air

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user's guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	IUR $(ug/m^3)^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Carcinogenic SL TR=0.0001 (ug/m^3)	Noncarcinogenic SL THI=1 (ug or fibers/m^3)	Screening Level (ug or fibers/m^3)
Chromium(VI)	18540-29-9	Yes	No	Inorganics	8.40E-02	U	1.00E-04	U	3.51E-01	4.21E+00	3.51E-01 ca*

Site-specific Risk for Air

Chemical	IUR $(ug/m^3)^{-1}$	IUR Ref	RfC (mg/m^3)	RfC Ref	Concentration (ug or fibers/m^3)	Carcinogenic Risk	Noncarcinogenic HI
Chromium(VI)	8.40E-02	U	1.00E-04	U	1.80E+01	5.13E-03	4.27E+00
**Total Risk/HI*	-		-		-	*5.13E-03*	*4.27E+00*

ATTACHMENT 5