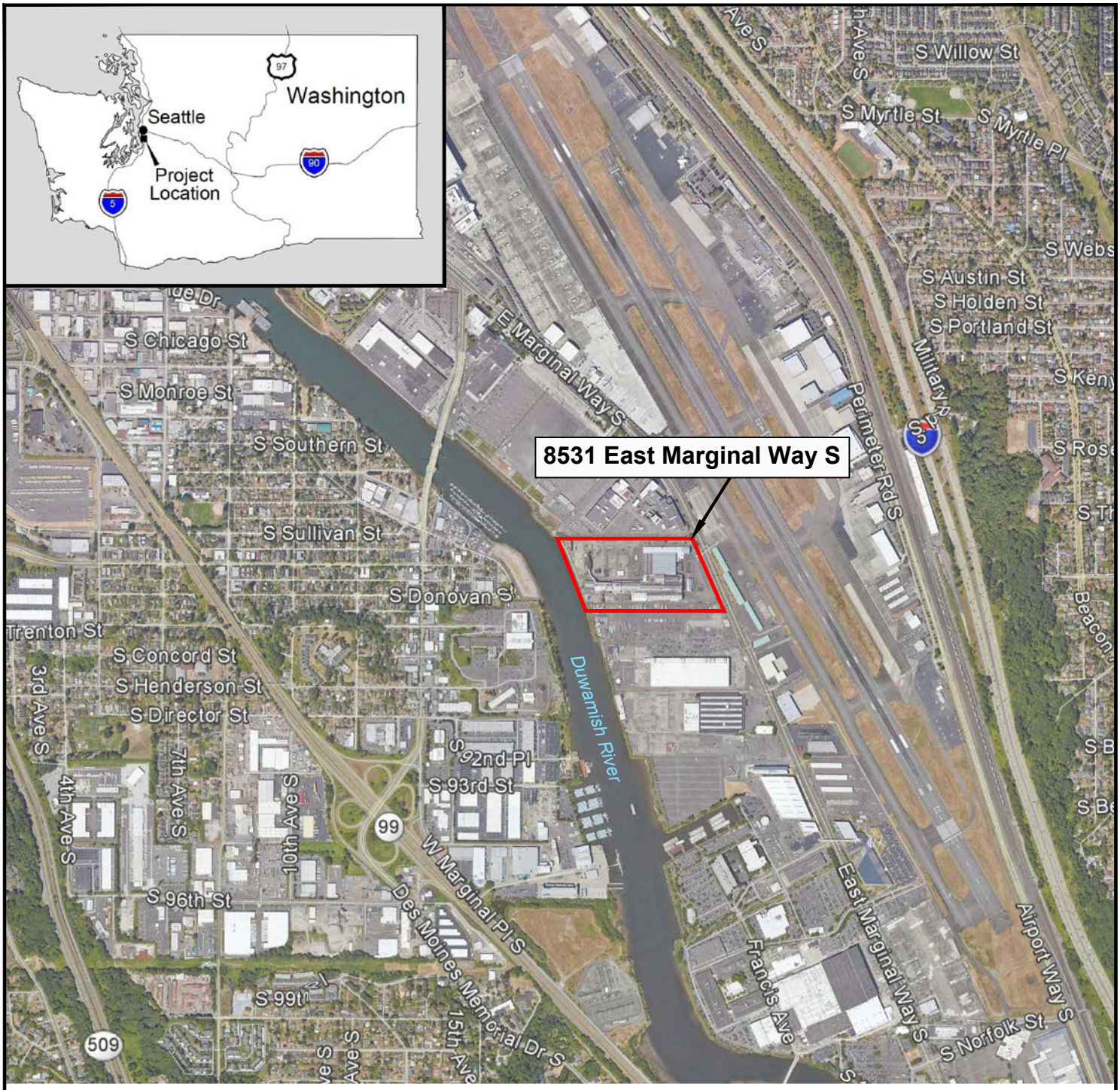


Vicinity Map

0 750 1500
Scale in Feet

LEGEND
Site Location

N

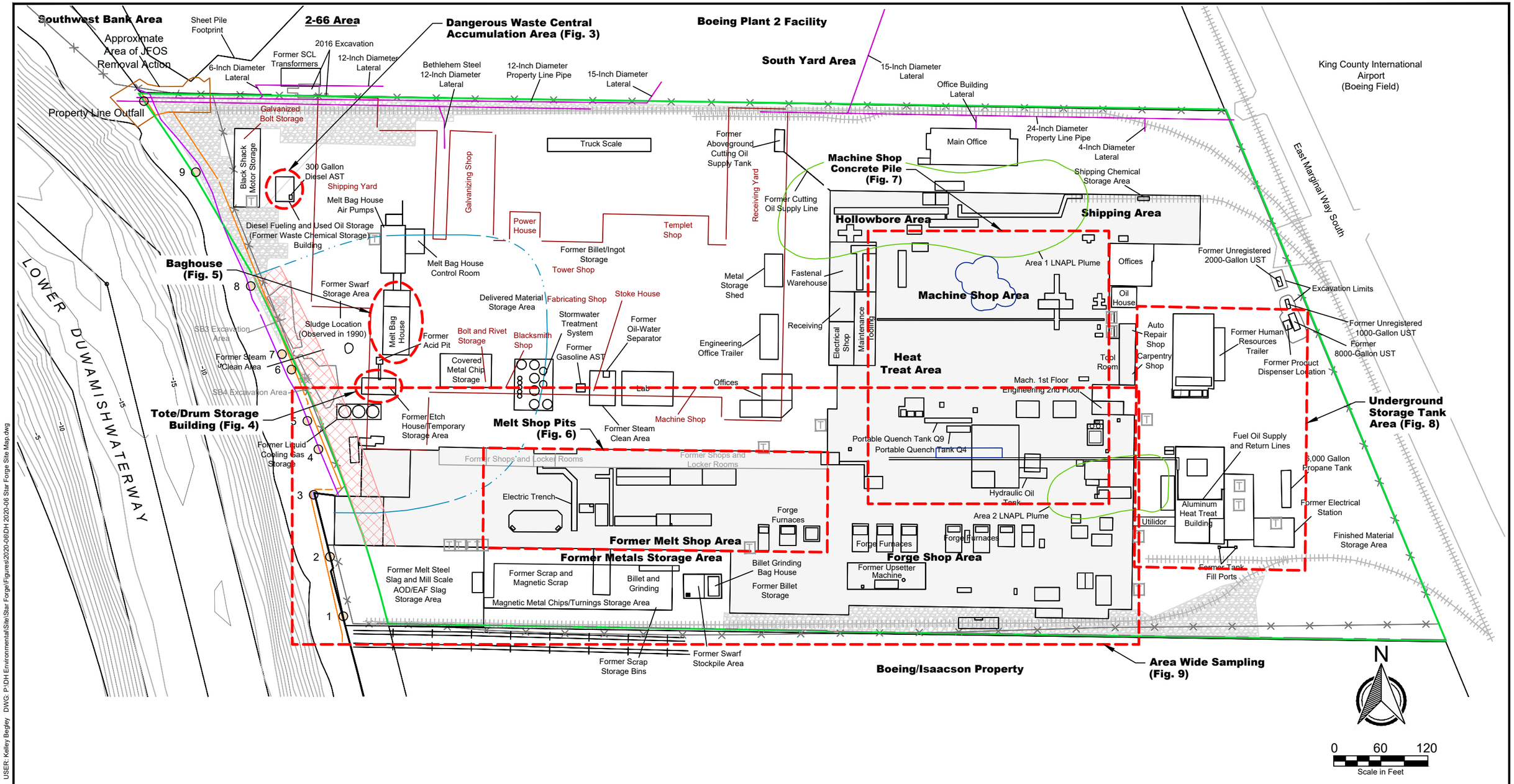
Background Images Source: Google Earth Pro 5/26/2018

DH Environmental Inc

VICINITY MAP

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 1

PLOT TIME: 6/17/2020 3:08 PM MOD TIME: 6/17/2020 2:28 PM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Star Forge Vic Map.dwg



Legend

- Approximate Property Boundary
- Top of Shoreline Bank (2012)
- Top of Shoreline Bank (2014)
- Former Bethlehem Steel Facility
- Former Embayment
- Property Line Outfall Pipes
- Estimated Extent of LNAPL on Groundwater (Farallon, August 2009)
- Approximate Excavation Extents
- Bulkhead Area
- Outfall (Active)
- Outfall (Inactive)
- Railroad
- Fence
- Transformer
- Below Ground Feature

Notes:

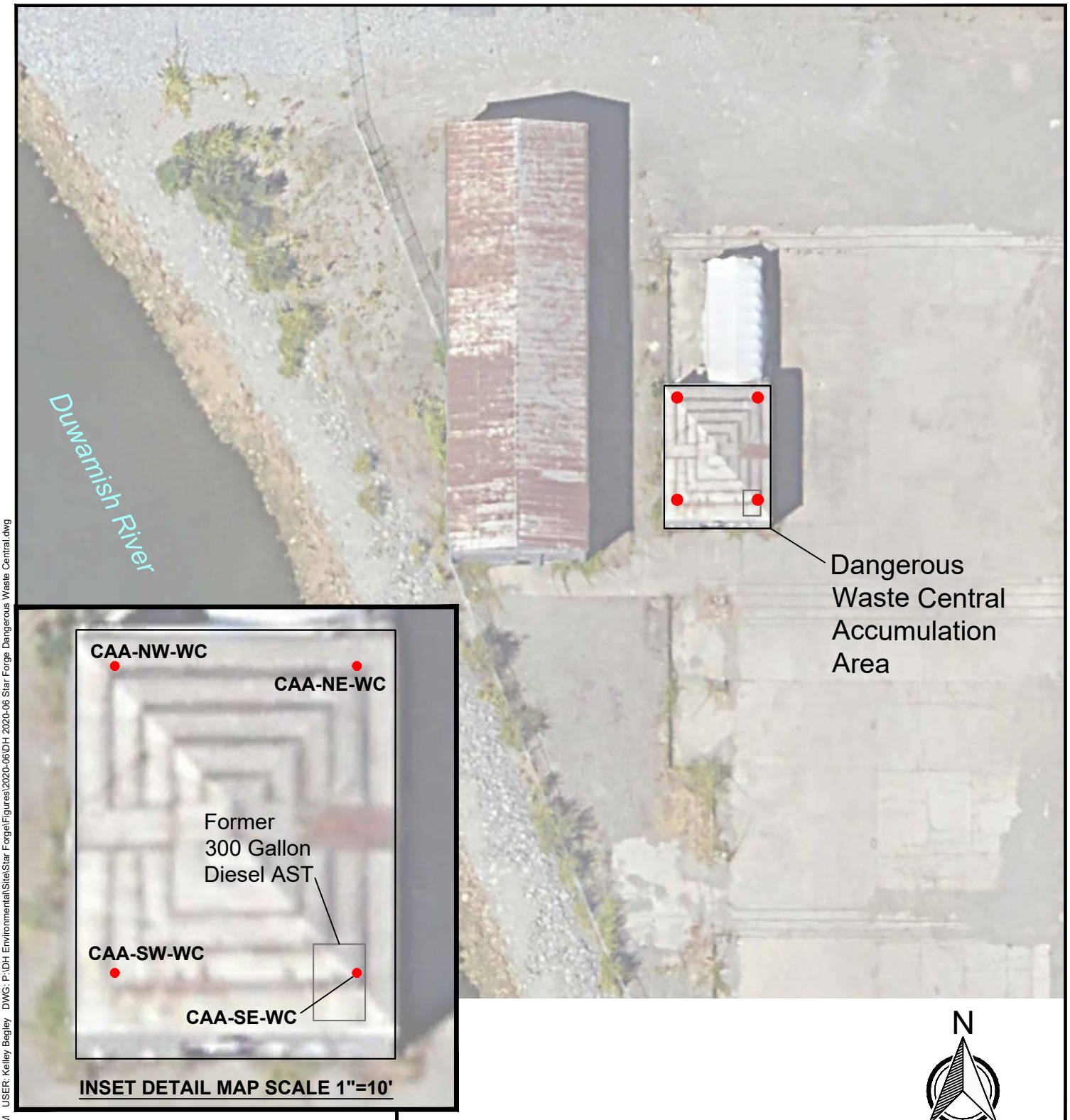
1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Achor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., Dated Jan 24, 2012.
2. Red text refers to features of the former Bethlehem Steel Facility.

DH Environmental Inc

SITE MAP

Former Jorgensen Forge Facility 8531 E. Marginal Way S. Tukwila, WA, 98108	06-19-2020	Figure 2

PLOT TIME: 6/18/2020 9:47 AM MOD TIME: 6/17/2020 5:54 PM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Site Map.dwg



N

0 15 30

Scale in Feet

LEGEND

- Clean Closure Confirmation Sample Location

Notes:

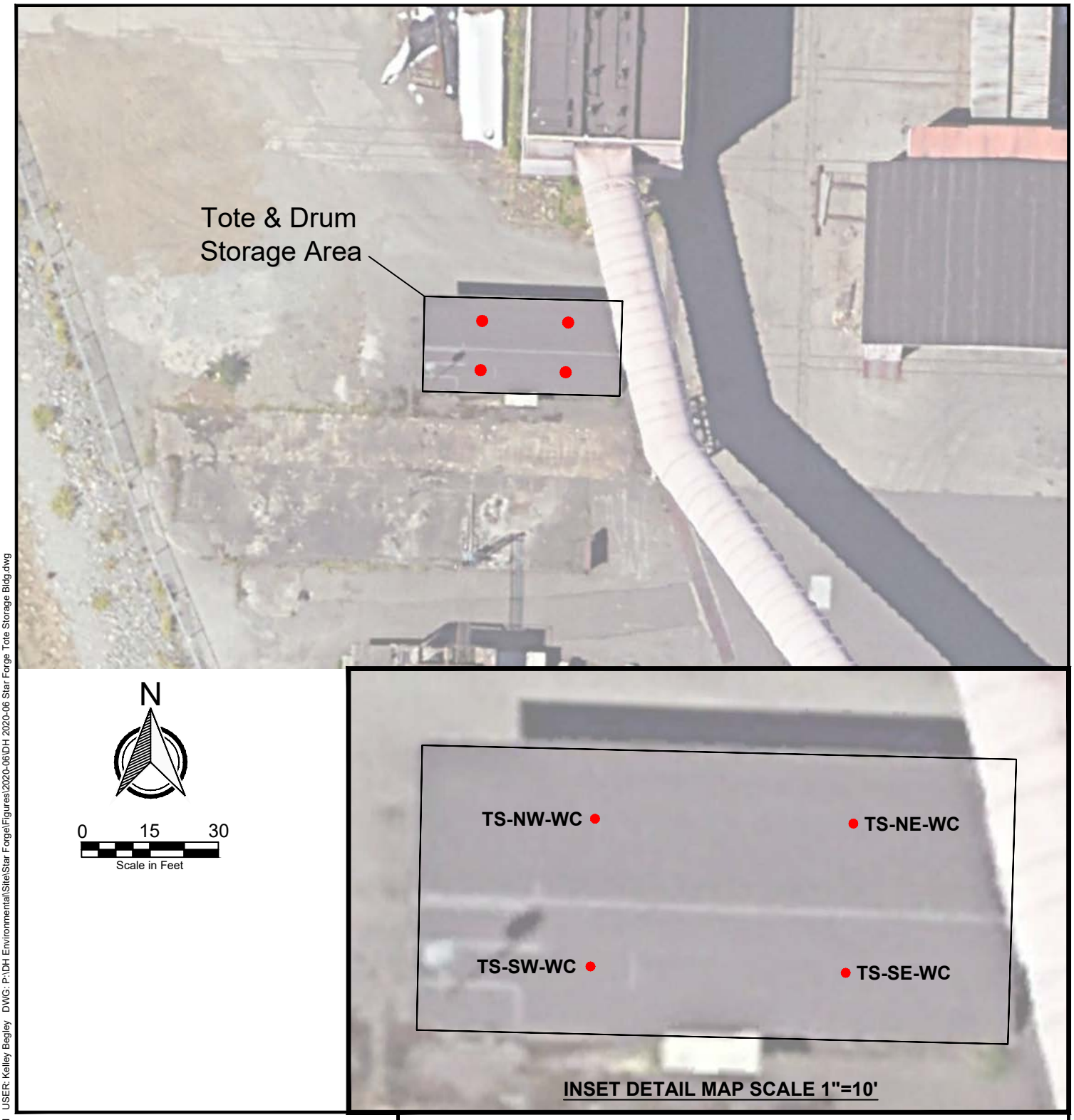
1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.

DH Environmental Inc

Central Accumulation Area Sampling Locations

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 3

PLOT TIME: 6/29/2020 5:35 PM MOD TIME: 6/29/2020 5:35 PM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Star Forge Dangerous Waste Central.dwg



DH Environmental Inc

Tote Storage Building Sampling Locations

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 4

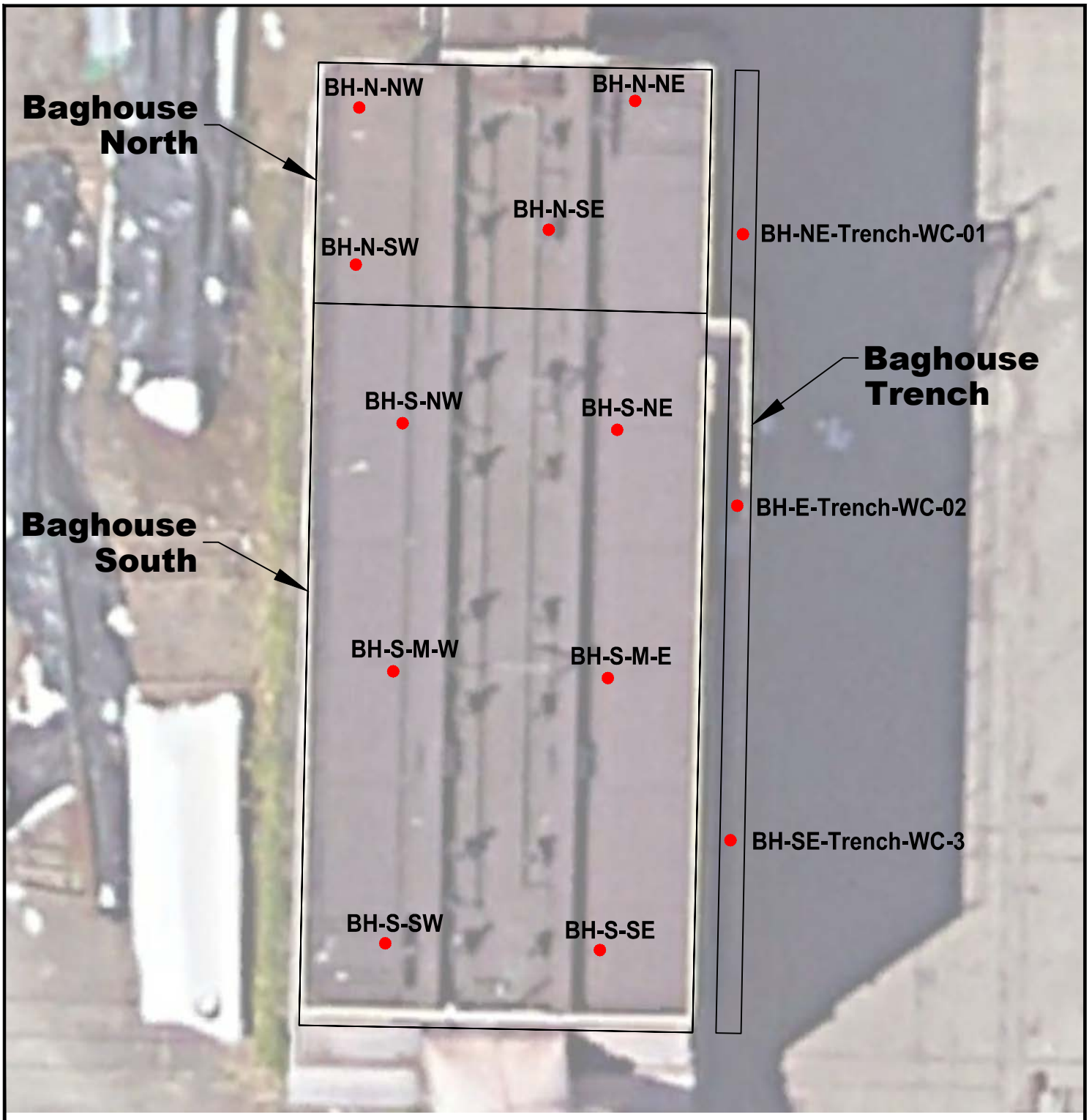
LEGEND

- Clean Closure Confirmation Sample Location

Notes:

1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.

PLOT TIME: 6/29/2020 5:37 PM MOD TIME: 6/29/2020 5:36 PM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Star Forge Tote Storage Bldg.dwg



N

0 6 12

Scale in Feet

LEGEND

● Clean Closure Confirmation Sample Location

Notes:

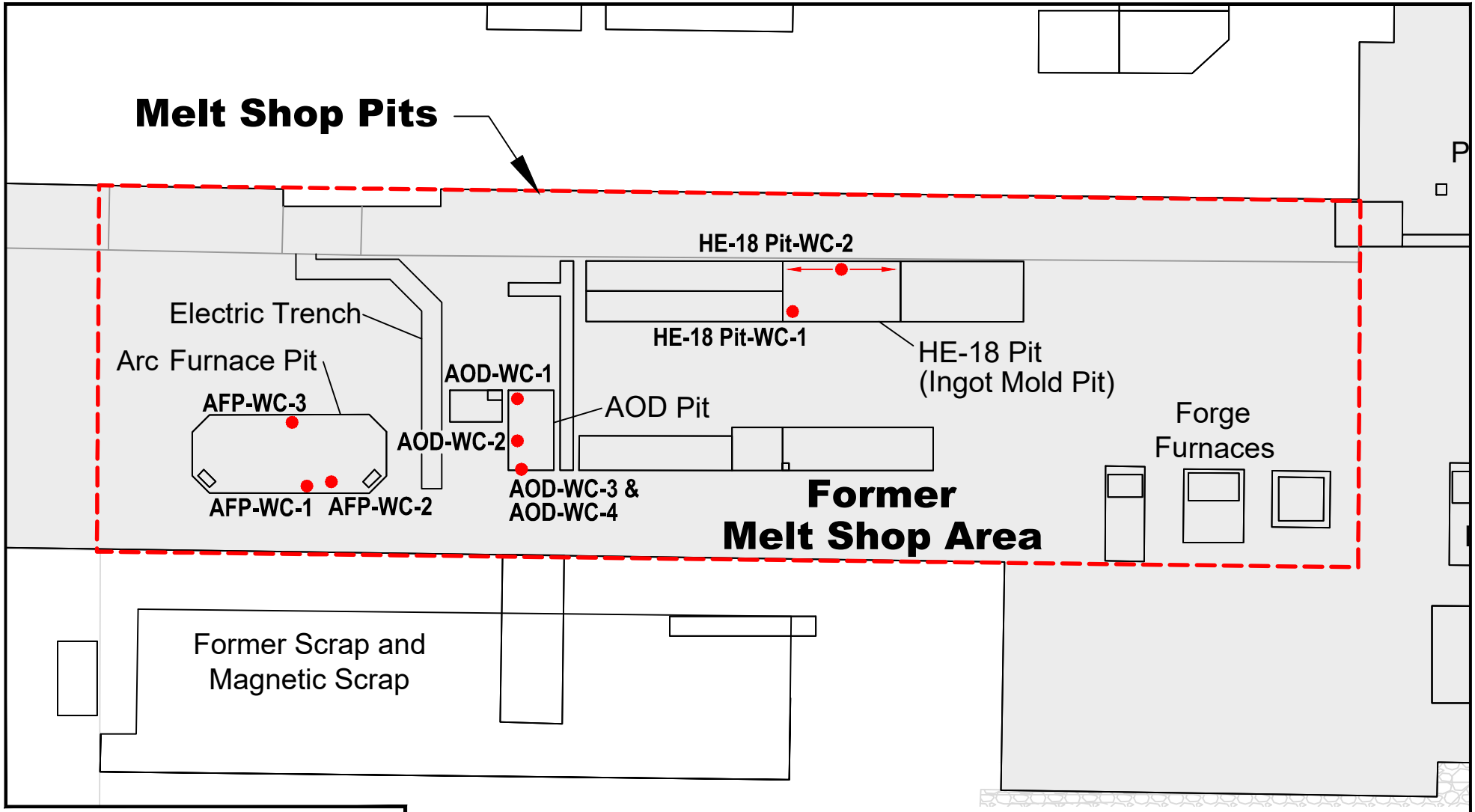
1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.

DH Environmental Inc

Baghouse Sampling Locations

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 5

PLOT TIME: 6/30/2020 11:44 AM MOD TIME: 6/30/2020 11:41 AM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Star Forge Baghouse.dwg



DH Environmental Inc

Melt Shop Pits Sampling Areas

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 6

LEGEND

- Waste Designation Sample Location
- Sample Collected Along Pit Wall Breadth

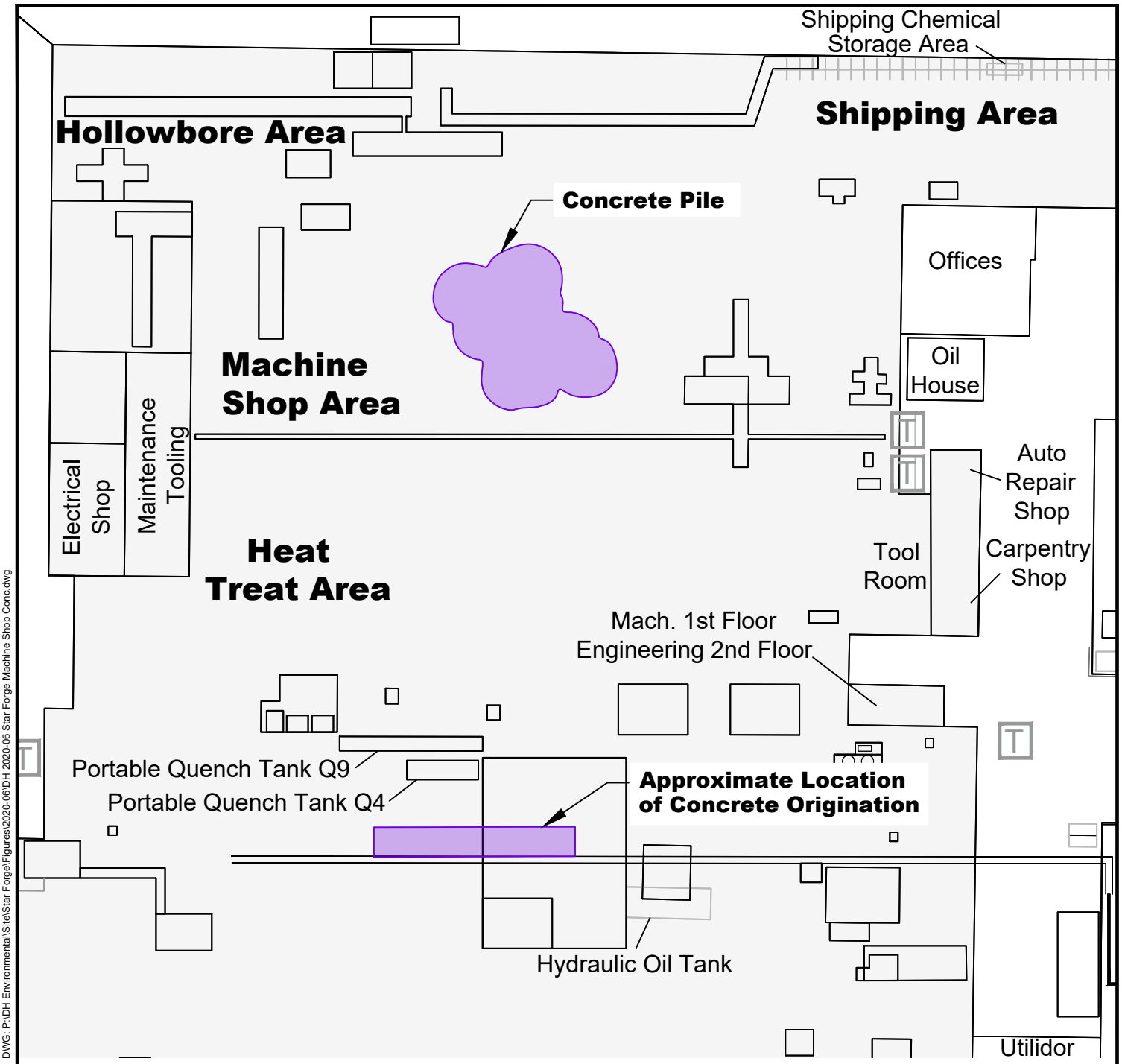
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1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.

N

0 25 50

Scale in Feet



N

0 30 60

Scale in Feet

Notes:

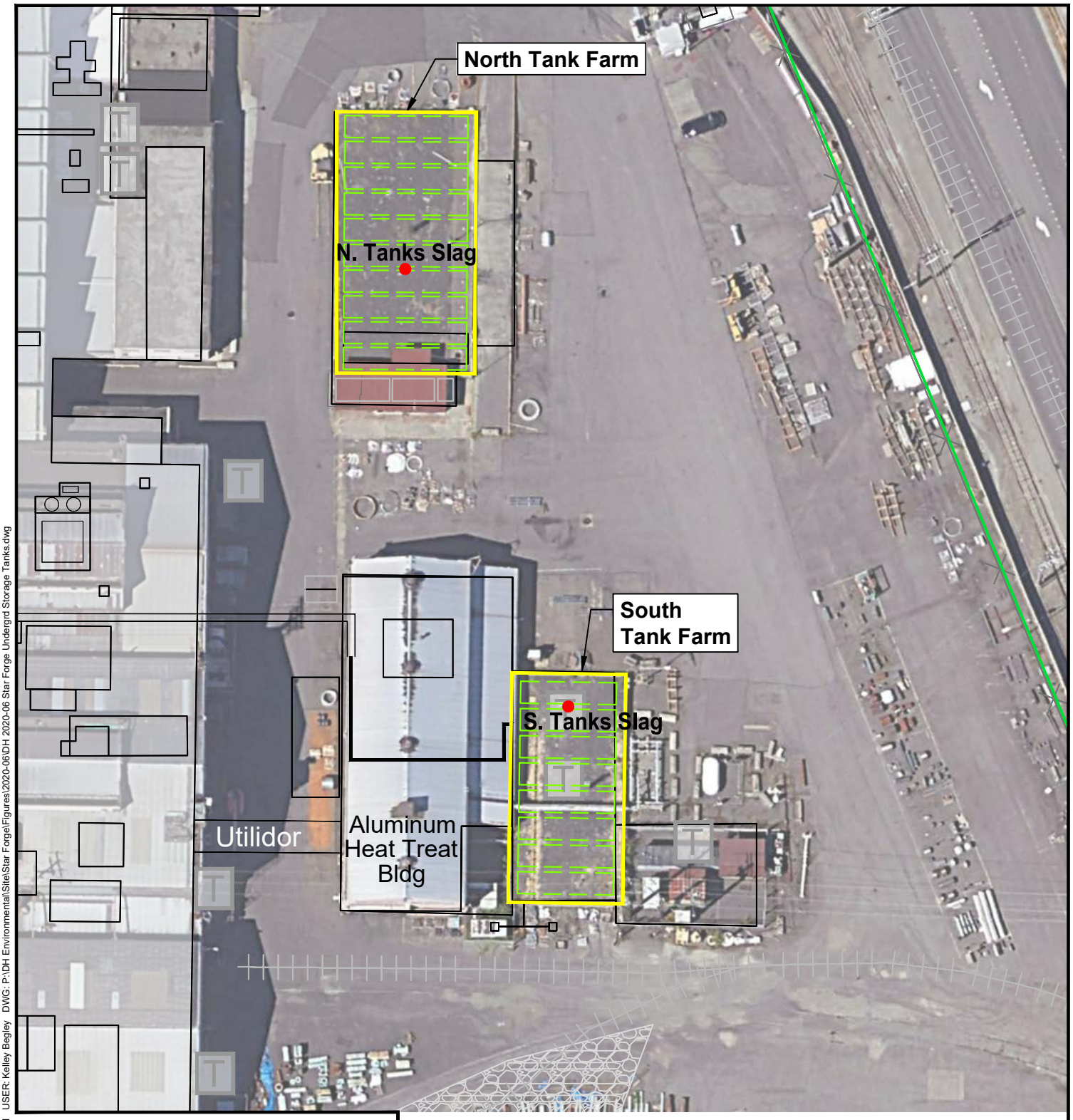
1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.

DH Environmental Inc

Machine Shop Concrete Debris Stockpile

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 7

PLOT TIME: 6/18/2020 2:27 PM MOD TIME: 6/18/2020 2:27 PM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Star Forge Machine Shop Conc.dwg



PLOT TIME: 6/18/2020 1:43 PM MOD TIME: 6/18/2020 1:22 PM USER: Kelley Begley DWG: P:\DH Environmental\Site\Star Forge\Figures\2020-06\DH 2020-06 Star Forge Undergrd Storage Tanks.dwg

DH Environmental Inc

UNDERGROUND STORAGE TANKS

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 8

LEGEND

- Waste Designation Sample Location

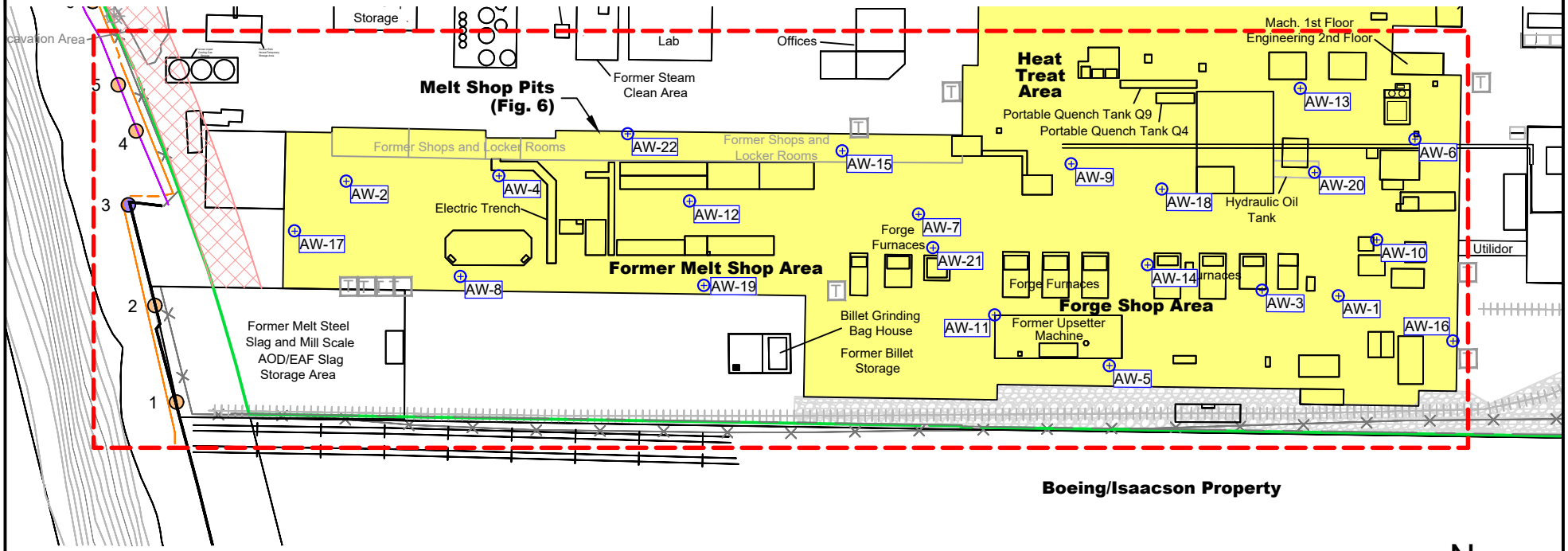
N

0 25 50

Scale in Feet

Notes:

1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.



N

0 60 120

Scale in Feet

LEGEND

⊕ Statistical Sample Location

Notes:

1. Figure adapted from client file, 141500101002_1-8.dwg, prepared by PES Environmental, Inc. dated July 2017, and 01012802-006.dwg, prepared by Anchor Environmental, LLC and Farallon Consulting. Property Boundary from client file, 11078 Topo E-MAIL.dwg, prepared by Anchor QEA, LLC., dated Jan 24, 2012.

DH Environmental Inc

Area Wide Statistical Sampling Locations

Former Jorgensen Forge Facility 8531 East Marginal Way S Tukwila, WA, 98108	06-19-2020	Figure 9

DANGEROUS WASTE DESIGNATION FORM –
Central Accumulation Area Clean Closure Designation Sampling

Star Forge, Former Jorgenson Forge Property

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Central Accumulation Area (CAA) Clean Closure Designation Sampling

Generation Process: Concrete dust generated from concrete core samples collected from containment floor the containment floor of the CAA performed as part of site Clean Closure activities.

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813 **Other Descriptions (i.e. Shop, Project, Etc.):**	No waste will be generated during site demolition.

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☐Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☒N/A
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic	**PCB Content**	**TCLP Metals**
☐Ignitable **[D001]** ☐Corrosive **[D002]** ☐Reactive **[D003]** ☐Toxic **[D004 – D043]** **List Here:**	☒Not Detected **[non TSCA or State Regulated]** ☐Not Sampled ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]** ☐≥ 50 ppm **[TSCA Regulated]** ☐< 1 ppm Note: **IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)**	☐Arsenic ≥ 5.0 mg/L **[D004]** ☐Barium ≥ 100.0 mg/L **[D005]** ☐Cadmium ≥ 1.0 mg/L **[D006]** ☐Chromium ≥ 5.0 mg/L **[D007]** ☐Lead ≥ 5.0 mg/L **[D008]** ☐Mercury ≥ 0.2 mg/L **[D009]** ☐Selenium ≥ 1.0 mg/L **[D010]** ☐Silver ≥ 5.0 mg/L **[D011]** Check if: ☐Assumed ☒TCLP Conducted ☐TCLP Not Conducted **Comments:** TCLP analysis was conducted on all samples.

Total Metals ☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:		☒ND
Barium:	260	☐ND
Cadmium:	0.58	☐ND
Chromium:	27	☐ND
Lead:	4200	☐ND
Mercury:	0.58	☐ND
Selenium:		☒ND
Silver:		☒ND
Copper:	31	☐ND
Nickel:	23	☐ND
Zinc:	72	☐ND

Comments: Total metals data represents the highest metals concentration across all 4 samples.

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Concrete Dust	100

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**

☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

For the purposes of Clean Closure in accordance with the Dangerous Waste Regulations, we have identified all of the Dangerous Waste Management Units subject to Clean Closure. The Central Accumulation Area had been identified by historical documents and interviews with facility staff that worked at the facility when it was operational. The CAA been emptied of all Hazardous and Dangerous Waste and cleaned. The concrete berm and floors of the CAA were then cleaned using a hot water pressure washer. Concrete wash water was contained and captured using a vacuum truck. All waste generated from cleaning activities was designated and the designation information is included as a separate waste designation package. For reference waste generated from cleaning of the CAA was non-hazardous.

On 29 May 2020, DH Environmental conducted a sampling effort to determine if containment area of the CAA is considered Clean under WAC 173-303-200(12). The sampling design for the Central Accumulation Area consisted of gridding each area into four quadrants. A minimum of one sample was collected from the concrete floor surface in each of the sampling grids. Some minor staining was present and samples were collected from this area. In grind areas where staining was not present, the sample was collected from the center of each grid as described in the Sampling and Analysis Plan. Samples were collected by using a roto-hammer concrete drill and drilling into the concrete surface approximately 4-inches and extracting the drill bit. The drill cuttings were scraped up onto a dedicated piece of cardstock and placed into laboratory supplied sampling containers. Multiple drill holes were required to obtain sufficient sample volume, in which case the drill holes were located in close proximity to each other.

Representative samples were collected analyzed for total RCRA 8 metals by EPA Methods 6010D (arsenic, barium, cadmium, chromium, copper, lead, nickel, selenium, silver, and zinc) and 7471B (mercury); TCLP RCRA 8 metals by EPA methods 1311 (extraction), 6010D (all except mercury), and 7471B (mercury); PCBs by EPA method 8082; VOCs by EPA Method 8260. Even though they were not considered contaminates of concern, PAHs by EPA 8270D was conducted on one of the samples. Some samples exhibited total lead concentrations above 20 times the federal regulatory limit. However, despite the high total concentrations, all samples "passed" the TCLP. In addition, the total analysis of volatiles by EPA 8260C and PAHs by EPA 8270D did not indicate the concrete should designate as characteristic for any RCRA volatiles or semi volatile compounds. Analysis has identified low level trace constituents listed in 40 CFR 261.31 (and WAC 173-303-9904), Wastes from Non- Specific Sources. For example, acetone was detected at a highest concentration of 0.26 mg/kg as well as 2-butanone at 0.045 mg/kg and Tetrachloroethene at 0.0032 mg/kg. However, the original processes generating any of the trace constituents in question are unknown and therefore RCRA F Series is not applicable. This designation is consistent with USEPA interpretation of unknown F-Listed trace constituents: Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste. After it was determined that no characteristic or listed waste designations should apply to the concrete dust, toxic equivalent concentration calculations were conducted on each sample in accordance with WAC 173-303-100(5). A Washington state toxic criteria book designation calculation was performed for each of the 4 samples taken throughout the floor of the CAA. All samples had an Equivalent Concentration (EC) less than 0.001%, therefore the waste stream has been designated as a non-dangerous waste.

Attachments:
☐Field Report
☒ Photo Log
☒Laboratory Data (OnSite Environmental Lab Report 2005-232)
☒Dangerous Waste Toxic Equivalent Concentration Calculation
☐Biological Testing Method 80-12 (Fish Bioassay)
☐Other:

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, solid

Designation Performed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-23-2020

Designation Reviewed by: David Hill, PE, CHMM, CPEA
Title: Principal Engineer Date: 06-23-2020

1011 SW KLICKITAT WAY
SUITE 107
SEATTLE, WASHINGTON 98134
(206) 293-3126

FIELD REPORT

File Name: FR-1_CAA_05292020

	Project: Star Forge – Waste Designation Sampling		Date: 05/29/2020
	Owner: Star Forge	Time of Arrival: 0900	Report Number: 1
Prepared by: Nathan Moxley	Location: CAA & Baghouse-North	Time of Departure: 1430	Page: Page 1 of 1
Purpose of Site Visit: Waste Designation Sampling	Weather: Clear, ~70-deg F	Travel/Prep. Time: 2.5 hr.	Project/Contract Number: Work Order 03 - Clean Closure

Upon arrival to the site I assessed personal safety hazards: ☒ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable
Safety Hazards Were Addressed by : ☐ Performing toolbox safety meeting ☒ Donning PPE, and observing safety standards

Site Visit Purpose and Details:

To collect samples of the concrete in the CAA and N. end of the baghouse. Samples were collected in accordance with the Clean Closure Sampling Analysis Plan.

Summary of Field Activities:

Nathan Moxley and Brian Johnson of DH Environmental arrived onsite at approximately 0900. Upon arrival we conducted a health and safety tailgate meeting and unloaded sampling equipment. The CAA and Baghouse-N were both divided into quadrants and samples were collected from each quadrant. Samples were collected from areas where staining was observed on the concrete. Samples were collected as prescribed in the SAP, by drilling 8-10 holes in the concrete with a roto-hammer. The dust from each hole was collected on a dedicated piece of cardstock and placed directly into laboratory supplied sampling containers.

Following the collection of each sample, a photo was taken. Photos are provided in the attached photo log.

The samples were hand delivered to Onsite Environmental, in Redmond, WA following chain of custody protocols.

☒ **THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Field Representative certifies the report was prepared with the intent to portray a true and accurate representation of the work performed or the observations made.	**FIELD REPRESENTATIVE:** Nathan Moxley, LHG	**DATE:** 05/29/2020
☐ **THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Reviewer certifies the report has been reviewed and is ready for release to the Client to support work product and/or deliverables without exception.	**REVIEWED BY:** Stacy Fox, CHMM	**DATE:** 06/03/2020

This report presents observations and a record of field activities relating to our services only. Other work may have been performed on this project that was not under the direction or guidance of DH Environmental, Inc. Our work did not include supervision or direction of the work of others. DH Environmental, Inc. is not responsible for job or site safety of others on this project. DISCLAIMER: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by DH Environmental, Inc. and will serve as the official document of record.

ATTACHMENTS:

☒Site Photos ☐Sketch ☐Chain of Custody ☐Other:
☐Sample Log ☐Drawing(s) ☐Calibration Records

Photo Log
CAA Waste Designation Sampling
5/29/2020
Star Forge, Tukwila, Washington



Photo 1: Sample location CAA-NE.



Photo 2: Sample location CAA-NW.



Photo 3: Sample location CAA-SE.



Photo 4: Drilling to collect sample at location CAA-SE.

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'CAA-NW-WC' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	230	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	26	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**2.60E-03**	
Copper	7440-50-8	30	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**3.00E-03**			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	23	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**2.30E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	69	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**6.90E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.26	LC Rat Inhalation 50.10 mg/kg[1]	D					**2.60E-05**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	0.044	LD50 Oral Rat 2737 mg/kg[1]	D					**4.40E-06**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	0.0086	LD50 Rat oral 2590 mg/kg[2]	**D**					**8.60E-07**
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	76	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	1300	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0030000**	**0.0069000**	**0.0026000**	**0.0023**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	3.00E-03	6.90E-03	2.60E-03	2.33E-03		
	0.00E+00	3.00E-04	6.90E-05	2.60E-06	2.33E-07	**0.0003718**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

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Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	250	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	0.58	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	**5.80E-05**				
Chromium	7440-47-3	25	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**2.50E-03**	
Copper	7440-50-8	27	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**2.70E-03**			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	16	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**1.60E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	72	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**7.20E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.041	LC Rat Inhalation 50.10 mg/kg[1]	D					**4.10E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	53	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	950	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000580**	**0.0027000**	**0.0072000**	**0.0025000**	**0.0016**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	5.80E-05	2.70E-03	7.20E-03	2.50E-03	1.60E-03		
	5.80E-05	2.70E-04	7.20E-05	2.50E-06	1.60E-07	**0.0004027**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	260	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	27	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.70E-03	
Copper	7440-50-8	25	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.50E-03			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	23	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.30E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	64	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			6.40E-03		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	0.0049	LD50 Oral Rat 1200 mg/kg[1]	D					4.90E-07
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	0.0032	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**				**3.20E-07**	
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	0.011	LD50 Rat oral 2590 mg/kg[2]	**D**					**1.10E-06**
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	76	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	860	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0025000**	**0.0064000**	**0.0027003**	**0.0023**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.50E-03	6.40E-03	2.70E-03	2.30E-03		
	0.00E+00	2.50E-04	6.40E-05	2.70E-06	2.30E-07	**0.0003169**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'CAA-SE-WC' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	210	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	20	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.00E-03	
Copper	7440-50-8	31	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		3.10E-03			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	16	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.60E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	52	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			5.20E-03		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.18	LC Rat Inhalation 50.10 mg/kg[1]	D					1.80E-05
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	0.045	LD50 Oral Rat 2737 mg/kg[1]	D					4.50E-06
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'CAA-SE-WC' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	0.0093	LD50 Rat oral 2590 mg/kg[2]	**D**					**9.30E-07**
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	0.056	1630 mg/kg Oral Rat LD50[2]	**D**					**5.60E-06**
1-methylnaphthalene	90-12-0	0.045	1840 mg/kg Oral Rate LD50[2]	**D**					**4.50E-06**
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	0.092	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**			**9.20E-06**		
Phenanthrene	85-01-8	0.25	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**		**2.50E-05**			
Anthracene	120-12-7	0.042	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**	**4.20E-06**				

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'CAA-SE-WC' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	0.28	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C				2.80E-05	
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	4700	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	2400	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000042**	**0.0031250**	**0.0052092**	**0.0020280**	**0.0016**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	4.20E-06	3.13E-03	5.21E-03	2.03E-03	1.63E-03		
	4.20E-06	3.13E-04	5.21E-05	2.03E-06	1.63E-07	**0.0003710**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 2, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-232

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on May 29, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

Case Narrative

Samples were collected on May 29, 2020 and received by the laboratory on May 29, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

The percent recovery for surrogate Dibromofluoromethane is outside of the control limits for all samples due to matrix effects.

Total Metals EPA 6010D/7471B Analysis

The duplicate RPD for Nickel is outside control limits due to sample inhomogeneity.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Gasoline	**ND**	5.2	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Gasoline	**ND**	5.9	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Gasoline	**ND**	5.7	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Gasoline	**ND**	5.5	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*58-129*				
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Gasoline	**ND**	5.9	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Gasoline	**ND**	5.6	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*58-129*				
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Gasoline	**ND**	5.5	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Gasoline	**ND**	5.6	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*58-129*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601S1					
Gasoline	**ND**	5.0	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*88*	*89*	*58-129*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Diesel Range Organics	**76**	26	NWTPH-Dx	5-29-20	6-1-20	N
Lube Oil	**1300**	52	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Diesel Range Organics	**53**	26	NWTPH-Dx	5-29-20	6-1-20	N
Lube Oil	**950**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Diesel Range Organics	**76**	26	NWTPH-Dx	5-29-20	6-1-20	N
Lube Oil	**860**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Diesel Range Organics	**4700**	130	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil Range Organics	**2400**	260	NWTPH-Dx	5-29-20	6-1-20	N1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				F
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Diesel Range Organics	**ND**	26	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil	**87**	52	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Diesel Range Organics	**ND**	130	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil	**2900**	260	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Diesel Range Organics	**ND**	26	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil Range Organics	**ND**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*52*	*50-150*				
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Diesel Range Organics	**ND**	26	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil	**1200**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*59*	*50-150*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	5-29-20	5-29-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	SB0529S1										
	ORIG	DUP									
Diesel Fuel #2	**90.4**	**87.6**	NA	NA		NA		NA	3	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*90*	*89*	*50-150*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.26	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0080	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	0.044	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	0.0086	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*24*	*74-131*				Q
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*89*	*71-130*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.041	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0079	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*21*	*74-131*				Q
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	ND	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0080	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	0.0049	0.0017	EPA 8260D	5-30-20	5-30-20	Y
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	0.0032	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	0.011	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*25*	*74-131*				Q
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*95*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Acetone	0.18	0.010	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0077	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Butanone	0.045	0.0052	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	0.0093	0.0052	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*41*	*74-131*				Q
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.032	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0080	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0071	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*32*	*74-131*				Q
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Dichlorodifluoromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Acetone	0.050	0.0096	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0072	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0015	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0019	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*35*	*74-131*				Q
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Dichlorodifluoromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Acetone	0.014	0.0097	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0073	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0015	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0019	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*42*	*74-131*				Q
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*102*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.018	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0081	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0071	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0022	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*42*	*74-131*				Q
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0530S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Acetone	ND	0.010	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0075	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0530S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*96*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0530S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0523**	**0.0483**	0.0500	0.0500	105	97	55-126	8	17	
Benzene	**0.0478**	**0.0444**	0.0500	0.0500	96	89	65-121	7	16	
Trichloroethene	**0.0515**	**0.0500**	0.0500	0.0500	103	100	74-126	3	16	
Toluene	**0.0504**	**0.0483**	0.0500	0.0500	101	97	71-121	4	16	
Chlorobenzene	**0.0539**	**0.0523**	0.0500	0.0500	108	105	72-123	3	15	
Surrogate:										
Dibromofluoromethane					*97*	*96*	*74-131*			
Toluene-d8					*98*	*98*	*78-128*			
4-Bromofluorobenzene					*100*	*99*	*71-130*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Naphthalene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
2-Methylnaphthalene	**0.056**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
1-Methylnaphthalene	**0.045**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthylene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Fluorene	**0.092**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Phenanthrene	**0.25**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Anthracene	**0.042**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Fluoranthene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Pyrene	**0.28**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]anthracene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Chrysene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[b]fluoranthene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo(j,k)fluoranthene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]pyrene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Dibenz[a,h]anthracene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[g,h,i]perylene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*59*	*46 - 113*				
Pyrene-d10	*76*	*45 - 114*				
Terphenyl-d14	*85*	*49 - 121*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Naphthalene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
2-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
1-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthylene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Fluorene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Phenanthrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Anthracene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Fluoranthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Pyrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]anthracene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Chrysene	**0.0078**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[b]fluoranthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo(j,k)fluoranthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]pyrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Dibenz[a,h]anthracene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[g,h,i]perylene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*46 - 113*				
Pyrene-d10	*88*	*45 - 114*				
Terphenyl-d14	*82*	*49 - 121*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*46 - 113*				
Pyrene-d10	*90*	*45 - 114*				
Terphenyl-d14	*90*	*49 - 121*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0529S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0621**	**0.0637**	0.0833	0.0833	75	76	60 - 116	3	16	
Acenaphthylene	**0.0691**	**0.0666**	0.0833	0.0833	83	80	60 - 125	4	15	
Acenaphthene	**0.0696**	**0.0674**	0.0833	0.0833	84	81	60 - 121	3	15	
Fluorene	**0.0755**	**0.0757**	0.0833	0.0833	91	91	65 - 126	0	15	
Phenanthrene	**0.0749**	**0.0747**	0.0833	0.0833	90	90	65 - 120	0	15	
Anthracene	**0.0783**	**0.0766**	0.0833	0.0833	94	92	67 - 125	2	15	
Fluoranthene	**0.0788**	**0.0806**	0.0833	0.0833	95	97	66 - 125	2	15	
Pyrene	**0.0810**	**0.0792**	0.0833	0.0833	97	95	62 - 125	2	15	
Benzo[a]anthracene	**0.0923**	**0.0879**	0.0833	0.0833	111	106	72 - 129	5	15	
Chrysene	**0.0756**	**0.0776**	0.0833	0.0833	91	93	66 - 123	3	15	
Benzo[b]fluoranthene	**0.0848**	**0.0772**	0.0833	0.0833	102	93	68 - 128	9	15	
Benzo(j,k)fluoranthene	**0.0794**	**0.0839**	0.0833	0.0833	95	101	63 - 128	6	16	
Benzo[a]pyrene	**0.0830**	**0.0785**	0.0833	0.0833	100	94	66 - 130	6	15	
Indeno(1,2,3-c,d)pyrene	**0.0799**	**0.0799**	0.0833	0.0833	96	96	63 - 135	0	15	
Dibenz[a,h]anthracene	**0.0804**	**0.0791**	0.0833	0.0833	97	95	65 - 130	2	15	
Benzo[g,h,i]perylene	**0.0817**	**0.0807**	0.0833	0.0833	98	97	66 - 127	1	15	
Surrogate:										
2-Fluorobiphenyl					*81*	*75*	*46 - 113*			
Pyrene-d10					*93*	*90*	*45 - 114*			
Terphenyl-d14					*88*	*89*	*49 - 121*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Aroclor 1016	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*92*	*46-125*				
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*46-125*				
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*46-125*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*99*	*46-125*				
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Aroclor 1016	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*46-125*				
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*89*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*72*	*46-125*				
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*61*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0529S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.455**	**0.469**	0.500	0.500	N/A	**91**	**94**	50-134	3	18	
Surrogate:											
DCB						*90*	*89*	*46-125*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**230**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.52	EPA 6010D	6-1-20	6-1-20	
Chromium	**26**	0.52	EPA 6010D	6-1-20	6-1-20	
Copper	**30**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.2	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**23**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**69**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**250**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**0.58**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**25**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**27**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**16**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**72**	2.6	EPA 6010D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**260**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**27**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**25**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**23**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**64**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**210**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**20**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**31**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**16**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**52**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Arsenic	**22**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**47**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.52	EPA 6010D	6-1-20	6-1-20	
Chromium	**43**	0.52	EPA 6010D	6-1-20	6-1-20	
Copper	**24**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**14**	5.2	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**15**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**63**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Arsenic	**21**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**48**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**71**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**33**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**59**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**26**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**130**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Arsenic	**16**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**62**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**1.2**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**55**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**29**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**130**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**22**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**220**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Arsenic	**22**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**67**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**39**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**26**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**33**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**21**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**110**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601SH1					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.50	EPA 6010D	6-1-20	6-1-20	
Chromium	**ND**	0.50	EPA 6010D	6-1-20	6-1-20	
Copper	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.0	EPA 6010D	6-1-20	6-1-20	
Nickel	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Laboratory ID:	MB0601S1					
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**224**	**237**	NA	NA		NA		NA	5	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**25.1**	**28.5**	NA	NA		NA		NA	13	20	
Copper	**29.6**	**29.0**	NA	NA		NA		NA	2	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Nickel	**22.0**	**27.2**	NA	NA		NA		NA	21	20	L
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**67.1**	**70.9**	NA	NA		NA		NA	5	20	
Laboratory ID:	05-208-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-232-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**90.6**	**89.5**	100	100	ND	**91**	**90**	75-125	1	20	
Barium	**343**	**345**	100	100	224	**119**	**120**	75-125	0	20	
Cadmium	**44.8**	**45.0**	50.0	50.0	ND	**90**	**90**	75-125	0	20	
Chromium	**99.8**	**102**	100	100	25.1	**75**	**77**	75-125	2	20	
Copper	**77.4**	**78.1**	50.0	50.0	29.6	**96**	**97**	75-125	1	20	
Lead	**205**	**208**	250	250	ND	**82**	**83**	75-125	1	20	
Nickel	**99.9**	**105**	100	100	22.0	**78**	**83**	75-125	5	20	
Selenium	**75.3**	**87.5**	100	100	ND	**75**	**88**	75-125	15	20	
Silver	**20.0**	**19.9**	25.0	25.0	ND	**80**	**79**	75-125	1	20	
Zinc	**157**	**158**	100	100	67.1	**90**	**91**	75-125	1	20	
Laboratory ID:	05-208-01										
Mercury	**0.454**	**0.498**	0.500	0.500	0.00500	**90**	**99**	80-120	9	20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.77**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.12**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.76**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.094**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.79**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.11**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.79**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.087**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.21**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.86**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.16**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.22**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.49**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.20**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.12**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T11					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Laboratory ID:	MB0602TM2					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T2					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-208-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**0.684**	**0.654**	NA	NA		NA	NA	4	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-208-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-138-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.376**	**0.380**	NA	NA		NA	NA	1	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-138-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-208-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.79**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	0	20	
Barium	**3.69**	**3.67**	4.00	4.00	ND	**92**	**92**	75-125	1	20	
Cadmium	**1.96**	**1.95**	2.00	2.00	ND	**98**	**98**	75-125	1	20	
Chromium	**4.21**	**4.21**	4.00	4.00	0.684	**88**	**88**	75-125	0	20	
Lead	**8.54**	**8.50**	10.0	10.0	ND	**85**	**85**	75-125	0	20	
Selenium	**3.88**	**3.91**	4.00	4.00	ND	**97**	**98**	75-125	1	20	
Silver	**0.904**	**0.908**	1.00	1.00	ND	**90**	**91**	75-125	0	20	
Laboratory ID:	05-208-01										
Mercury	**0.0490**	**0.0497**	0.0500	0.0500	ND	**98**	**99**	75-125	1	20	
Laboratory ID:	05-138-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.91**	**3.91**	4.00	4.00	ND	**98**	**98**	75-125	0	20	
Barium	**3.95**	**3.96**	4.00	4.00	0.376	**89**	**90**	75-125	0	20	
Cadmium	**1.94**	**1.97**	2.00	2.00	ND	**97**	**98**	75-125	1	20	
Chromium	**3.36**	**3.39**	4.00	4.00	ND	**84**	**85**	75-125	1	20	
Lead	**8.35**	**8.35**	10.0	10.0	ND	**84**	**84**	75-125	0	20	
Selenium	**3.91**	**3.83**	4.00	4.00	ND	**98**	**96**	75-125	2	20	
Silver	**0.894**	**0.896**	1.00	1.00	ND	**89**	**90**	75-125	0	20	
Laboratory ID:	05-138-01										
Mercury	**0.0472**	**0.0483**	0.0500	0.0500	ND	**94**	**97**	75-125	2	20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
CAA-NW-WC	05-232-01	**3**	5-29-20
CAA-NE-WC	05-232-02	**3**	5-29-20
CAA-SW-WC	05-232-03	**3**	5-29-20
CAA-SE-WC	05-232-04	**3**	5-29-20
BH-N-SW	05-232-05	**4**	5-29-20
BH-N-NW	05-232-06	**3**	5-29-20
BH-N-SE	05-232-07	**2**	5-29-20
BH-N-NE	05-232-08	**2**	5-29-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 05-232

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley, B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A						% Moisture
1	CAA-NW-WC	5/29/2020	1050	Solid	5			X	X	X					X				X		X							X
2	CAA-NE-WC		1110																									
3	CAA-SW-WC		1125																									
4	CAA-SE-WC		1145											X														
5	BH-N-SW		1230																									
6	BH-N-NW		1245																									
7	BH-N-SE		1300											X														
8	BH-N-NE		1315																									

	Signature	Company	Date	Time
Relinquished		DH Environmental	5/29/2020	1430
Received		OSE	5/29/20	1430
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to Dave Hill & data@dhenviro.com

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

DANGEROUS WASTE DESIGNATION FORM –
Tote Storage Area Clean Closure Designation Sampling

Star Forge, Former Jorgenson Forge Property

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Tote Storage Area (TSA) Clean Closure Designation Sampling

Generation Process: Asphalt dust generated from core samples collected from the containment floor of the TSA performed as part of site Clean Closure activities.

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813 **Other Descriptions (i.e. Shop, Project, Etc.):**	No waste will be generated during site demolition.

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☐Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic	**PCB Content**	**TCLP Metals**	**Total Metals** ☒mg/kg ☐ug/kg ☐mg/L ☐ug/L		
☐Ignitable **[D001]** ☐Corrosive **[D002]** ☐Reactive **[D003]** ☐Toxic **[D004 – D043]** **List Here:**	☐Not Detected **[non TSCA or State Regulated]** ☐Not Sampled ☒≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]** ☐≥ 50 ppm **[TSCA Regulated]** ☐< 1 ppm Note: Results ranged from 15.1 - 40 mg/kg total PCB's. The original source is unknown, and Star Forge is not aware of any PCBs stored, released, or otherwise managed at this location. WPCB code does not apply	☐Arsenic ≥ 5.0 mg/L **[D004]** ☐Barium ≥ 100.0 mg/L **[D005]** ☐Cadmium ≥ 1.0 mg/L **[D006]** ☐Chromium ≥ 5.0 mg/L **[D007]** ☐Lead ≥ 5.0 mg/L **[D008]** ☐Mercury ≥ 0.2 mg/L **[D009]** ☐Selenium ≥ 1.0 mg/L **[D010]** ☐Silver ≥ 5.0 mg/L **[D011]** Check if: ☐Assumed ☒TCLP Conducted ☐TCLP Not Conducted **Comments:** TCLP analysis was conducted on all samples.	Arsenic:	24	☐ND
			Barium:	86	☐ND
			Cadmium:		☒ND
			Chromium:	200	☐ND
			Lead:	26	☐ND
			Mercury:		☒ND
			Selenium:		☒ND
			Silver:		☒ND
			Copper:	44	☐ND
			Nickel:	53	☐ND
			Zinc:	85	☐ND
			Comments: Total metals data represents the highest metals concentration across all 4 samples.		

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Asphalt Dust	100

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**

☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

For the purposes of Clean Closure in accordance with the Dangerous Waste Regulations, we have identified all of the Dangerous Waste Management Units subject to Clean Closure. The Tote Storage Area(TSA) had been identified by historical documents and interviews with facility staff that worked at the facility when it was operational. The TSA been emptied of all Hazardous and Dangerous Waste and cleaned. The concrete berm and asphalt floor of the TSA were then cleaned using a hot water pressure washer. Wash water was contained and captured using a vacuum pump. All waste generated from cleaning activities were designated and the designation information is included as a separate waste designation package. For reference waste generated from cleaning of the TSA was non-hazardous.

On June 3, 2020, DH Environmental conducted a sampling effort to determine if containment area of the TSA is considered Clean under WAC 173-303-200(12). The sampling design for the TSA consisted of gridding the area into four quadrants. A minimum of one sample was collected from the asphalt floor surface in each of the sampling grids. Some minor staining was present, and samples were collected from that area. In grind areas where staining was not present, the sample was collected from the center of each grid as described in the Sampling and Analysis Plan. Samples were collected by using a roto-hammer drill and drilling into the asphalt surface approximately 4-inches and extracting the drill bit. The drill cuttings were scraped up onto a dedicated piece of cardstock and placed into laboratory supplied sampling containers. Multiple drill holes were required to obtain sufficient sample volume, in which case the drill holes were located in close proximity to each other.

Analytical results indicated that some samples exhibited total metals concentrations above 20 times the federal regulatory limit. However, despite the high total concentrations, all samples “passed” the TCLP. In addition, the total analysis of volatiles by EPA 8260C did not indicate the asphalt should designate as characteristic for any RCRA volatiles or semi volatile compounds. Analysis has identified low level trace constituents listed in 40 CFR 261.31 (and WAC 173-303-9904), Wastes from Non-Specific Sources. For example, acetone was detected at a highest concentration of 0.26 mg/kg, benzene at 0.0014 mg/kg, 1,1,1-Trichloroethane at 0.0018, as well as 2-butanone at 0.081 mg/kg and Xylene at 0.0025 mg/kg. However, the original processes generating any of the trace constituents in question are unknown and therefore RCRA F Series is not applicable. This designation is consistent with USEPA interpretation of unknown F-Listed trace constituents: Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste. Concentrations of PCB’s were detected in each of the 4 samples. The levels ranged from 15.1 mg/kg - 40 mg/kg total PCB’s. However, the original source of the PCBs is unknown, and Star Forge is not aware of any PCBs stored, released, or otherwise managed at this location. Therefore, the Washington State WPCB source code listing should not apply to the concrete as the listing applies when the source is from the following, or residues thereof, in accordance with WAC 173-303-9904:

After it was determined that no characteristic or listed waste designations should apply to the dust, toxic equivalent concentration calculations were conducted on each sample in accordance with WAC 173-303-100(5). A Washington state toxic criteria book designation calculation was performed for each of the 4 samples taken throughout the floor of the TSA. All samples had an Equivalent Concentration (EC) less than 0.001%, therefore the waste stream has been designated as a non-dangerous waste.

Attachments:
☒**Field Report**
☒ **Photo Log**
☒**Laboratory Data (**OnSite Environmental Lab Report 2005-232)
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, solid

Designation Performed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-23-2020

Designation Reviewed by: David Hill, PE, CHMM, CPEA
Title: Principal Engineer Date: 06-23-2020

Photo Log
Tote Storage Designation Sampling
6/3/2020
Star Forge, Tukwila, Washington



Photo 1: Tote Storage Building slab following cleaning. View to the west.



Photo 2: Sample location TS-NE-WC.



Photo 3: Sample location TS-NW-WC.



Photo 4: Sample location TS-SE-WC.



Photo 5: Sample location TS-SW-WC.

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Asphalt
Applicable Sample IDs: 'TS-SW-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	58	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	30	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**3.00E-03**	
Copper	7440-50-8	34	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**3.40E-03**			
Lead	7439-92-1	7.5	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**7.50E-04**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	31	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**3.10E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	38	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**3.80E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.057	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**5.70E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	0.013	LD50 Oral Rat 2737 mg/kg[1]	**D**					**1.30E-06**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	0.0018	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					**1.80E-07**
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	0.0014	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**				**1.40E-07**	
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Asphalt
Applicable Sample IDs: 'TS-SW-WC' (Lab Report 2006-050)
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	0.0025	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**				**2.50E-07**	
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	22	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**				**2.20E-03**	
Aroclor 1260	11096-82-5	18	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**				**1.80E-03**	
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	20000	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0034000**	**0.0078000**	**0.0037504**	**0.0031**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	3.40E-03	7.80E-03	3.75E-03	3.11E-03		
	0.00E+00	3.40E-04	7.80E-05	3.75E-06	3.11E-07	**0.0004221**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
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Applicable Sample IDs: 'TS-NW-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	12	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**1.20E-03**		
Barium	7440-39-3	74	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	66	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**6.60E-03**	
Copper	7440-50-8	32	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**3.20E-03**			
Lead	7439-92-1	8.5	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**8.50E-04**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	36	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**3.60E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	85	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**8.50E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.33	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**3.30E-05**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	0.0062	LD50 Oral Rat 1200 mg/kg[1]	**D**					**6.20E-07**
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	0.081	LD50 Oral Rat 2737 mg/kg[1]	**D**					**8.10E-06**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	0.015	LD50 Rat oral 2590 mg/kg[2]	**D**					**1.50E-06**
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	8.5	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**8.50E-04**		
Aroclor 1260	11096-82-5	6.6	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**6.60E-04**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Waste Stream: Asphalt
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	15000	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0032000**	**0.0112100**	**0.0074500**	**0.0036**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	3.20E-03	1.12E-02	7.45E-03	3.64E-03		
	0.00E+00	3.20E-04	1.12E-04	7.45E-06	3.64E-07	**0.0004399**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'TS-NE-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	76	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	42	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**4.20E-03**	
Copper	7440-50-8	32	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**3.20E-03**			
Lead	7439-92-1	10	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**1.00E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	31	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**3.10E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	51	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**5.10E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.11	LC Rat Inhalation 50.10 mg/kg[1]	D					**1.10E-05**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	0.0051	LD50 Oral Rat 1200 mg/kg[1]	D					**5.10E-07**
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	0.028	LD50 Oral Rat 2737 mg/kg[1]	D					**2.80E-06**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'TS-NE-WC' (Lab Report 2006-050)
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	8.1	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**8.10E-04**		
Aroclor 1260	11096-82-5	7.4	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**7.40E-04**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'TS-NE-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	20000	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0032000**	**0.0066500**	**0.0052000**	**0.0031**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	3.20E-03	6.65E-03	5.20E-03	3.11E-03		
	0.00E+00	3.20E-04	6.65E-05	5.20E-06	3.11E-07	**0.0003920**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Asphalt
Applicable Sample IDs: 'TS-SE-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	24	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**2.40E-03**		
Barium	7440-39-3	86	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	200	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.00E-02**	
Copper	7440-50-8	44	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**4.40E-03**			
Lead	7439-92-1	26	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**2.60E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	53	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**5.30E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	63	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**6.30E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.14	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**1.40E-05**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	0.0046	LD50 Oral Rat 1200 mg/kg[1]	**D**					**4.60E-07**
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	0.037	LD50 Oral Rat 2737 mg/kg[1]	**D**					**3.70E-06**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Asphalt
Applicable Sample IDs: 'TS-SE-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	12	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**1.20E-03**		
Aroclor 1260	11096-82-5	9.2	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**9.20E-04**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Asphalt
Applicable Sample IDs: 'TS-SE-WC' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	16000	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0044000**	**0.0108200**	**0.0226000**	**0.0053**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	4.40E-03	1.08E-02	2.26E-02	5.32E-03		
	0.00E+00	4.40E-04	1.08E-04	2.26E-05	5.32E-07	**0.0005713**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 9, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-050

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 3, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

Case Narrative

Samples were collected on June 3, 2020 and received by the laboratory on June 3, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

The percent recovery for surrogate Dibromofluoromethane is outside of the control limits for samples BH-S-SE, BH-S-SW, BH-S-M-E, BH-S-M-W, BH-S-NE, and BH-S-NW due to sample matrix effects.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Gasoline	**ND**	5.4	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*58-129*				
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Gasoline	**ND**	5.6	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*58-129*				
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Gasoline	**ND**	4.9	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*58-129*				
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Gasoline	**ND**	5.8	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Gasoline	**ND**	5.3	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Gasoline	**ND**	5.2	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Gasoline	**ND**	5.3	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*58-129*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Gasoline	**ND**	5.2	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*58-129*				
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Gasoline	**ND**	5.9	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*58-129*				
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Gasoline	**ND**	6.0	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*58-129*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603S1					
Gasoline	**ND**	5.0	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-050-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*84*	*86*	*58-129*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Diesel Range Organics	**ND**	1300	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**20000**	2500	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Diesel Range Organics	**ND**	1400	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**15000**	2700	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Diesel Range Organics	**ND**	1300	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**20000**	2600	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Diesel Range Organics	**ND**	1300	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**16000**	2700	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil	**220**	51	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	51	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	51	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-8-20	6-8-20	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	6-8-20	6-8-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Laboratory ID:	MB0608S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-8-20	6-8-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-8-20	6-8-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	SB0604S1										
	ORIG	DUP									
Diesel Fuel #2	**91.6**	**82.3**	NA	NA		NA		NA	11	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*104*	*94*	*50-150*			
Laboratory ID:	SB0608S3										
	ORIG	DUP									
Diesel Fuel #2	**82.8**	**81.7**	NA	NA		NA		NA	1	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*96*	*98*	*50-150*			

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Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chloromethane	ND	0.0079	EPA 8260D	6-4-20	6-4-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromomethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chloroethane	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Acetone	0.057	0.012	EPA 8260D	6-4-20	6-4-20	
Iodomethane	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Methylene Chloride	ND	0.0075	EPA 8260D	6-4-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Vinyl Acetate	ND	0.0074	EPA 8260D	6-4-20	6-4-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
2-Butanone	0.013	0.0076	EPA 8260D	6-4-20	6-4-20	Y
Bromochloromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chloroform	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1,1-Trichloroethane	0.0018	0.0012	EPA 8260D	6-4-20	6-4-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Benzene	0.0014	0.0012	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Toluene	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
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Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
2-Hexanone	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
m,p-Xylene	0.0025	0.0024	EPA 8260D	6-4-20	6-4-20	
o-Xylene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Styrene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromoform	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.054	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.27	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.27	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.27	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*120*	*74-131*				
Toluene-d8	*82*	*78-128*				
4-Bromofluorobenzene	*74*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.010	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Acetone	0.33	0.015	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	0.0062	0.0015	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0097	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0095	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
2-Butanone	0.081	0.0098	EPA 8260D	6-3-20	6-4-20	Y
Bromochloromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	0.015	0.0076	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0030	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.056	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.28	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.28	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.28	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*93*	*78-128*				
4-Bromofluorobenzene	*79*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0079	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Acetone	0.11	0.012	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	0.0051	0.0012	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0075	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
2-Butanone	0.028	0.0077	EPA 8260D	6-3-20	6-4-20	Y
Bromochloromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0024	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.049	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.25	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.25	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.25	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*74-131*				
Toluene-d8	*89*	*78-128*				
4-Bromofluorobenzene	*73*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Dichlorodifluoromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chloromethane	ND	0.0092	EPA 8260D	6-4-20	6-4-20	
Vinyl Chloride	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromomethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chloroethane	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Trichlorofluoromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Acetone	0.14	0.014	EPA 8260D	6-4-20	6-4-20	
Iodomethane	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Carbon Disulfide	0.0046	0.0014	EPA 8260D	6-4-20	6-4-20	
Methylene Chloride	ND	0.0088	EPA 8260D	6-4-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Vinyl Acetate	ND	0.0087	EPA 8260D	6-4-20	6-4-20	
2,2-Dichloropropane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
2-Butanone	0.037	0.0089	EPA 8260D	6-4-20	6-4-20	Y
Bromochloromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chloroform	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloropropene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Benzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Trichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Dibromomethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromodichloromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Toluene	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Tetrachloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,3-Dichloropropane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
2-Hexanone	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Dibromochloromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromoethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chlorobenzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Ethylbenzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
m,p-Xylene	ND	0.0027	EPA 8260D	6-4-20	6-4-20	
o-Xylene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Styrene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromoform	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Isopropylbenzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.058	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.29	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.29	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.29	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*74-131*				
Toluene-d8	*88*	*78-128*				
4-Bromofluorobenzene	*73*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.025	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0068	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0067	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0069	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0021	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*41*	*74-131*				Q
Toluene-d8	*103*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0074	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.029	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0070	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*37*	*74-131*				Q
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0074	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.017	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0070	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*44*	*74-131*				Q
Toluene-d8	*112*	*78-128*				
4-Bromofluorobenzene	*109*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0068	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Acetone	ND	0.010	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0065	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0064	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0066	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*34*	*74-131*				Q
Toluene-d8	*102*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.020	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0069	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0068	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0070	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*33*	*74-131*				Q
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*103*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.016	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0073	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0023	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*14*	*74-131*				Q
Toluene-d8	*102*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chloromethane	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromomethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chloroethane	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Acetone	ND	0.013	EPA 8260D	6-3-20	6-3-20	
Iodomethane	ND	0.0080	EPA 8260D	6-3-20	6-3-20	
Carbon Disulfide	ND	0.0019	EPA 8260D	6-3-20	6-3-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Vinyl Acetate	ND	0.0074	EPA 8260D	6-3-20	6-3-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Butanone	ND	0.0067	EPA 8260D	6-3-20	6-3-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chloroform	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Benzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dichloroethane	ND	0.0020	EPA 8260D	6-3-20	6-3-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Toluene	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-3-20	6-3-20	
o-Xylene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Styrene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromoform	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Naphthalene	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*74-131*				
Toluene-d8	*100*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chloromethane	ND	0.0067	EPA 8260D	6-4-20	6-4-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromomethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chloroethane	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Acetone	ND	0.010	EPA 8260D	6-4-20	6-4-20	
Iodomethane	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Methylene Chloride	ND	0.0064	EPA 8260D	6-4-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Vinyl Acetate	ND	0.0063	EPA 8260D	6-4-20	6-4-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Butanone	ND	0.0065	EPA 8260D	6-4-20	6-4-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chloroform	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Benzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Toluene	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-4-20	6-4-20	
o-Xylene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Styrene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromoform	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Naphthalene	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*74-131*				
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0603S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0457**	**0.0499**	0.0500	0.0500	91	100	55-126	9	17	
Benzene	**0.0427**	**0.0448**	0.0500	0.0500	85	90	65-121	5	16	
Trichloroethene	**0.0494**	**0.0513**	0.0500	0.0500	99	103	74-126	4	16	
Toluene	**0.0456**	**0.0487**	0.0500	0.0500	91	97	71-121	7	16	
Chlorobenzene	**0.0532**	**0.0537**	0.0500	0.0500	106	107	72-123	1	15	
Surrogate:										
Dibromofluoromethane					*96*	*95*	*74-131*			
Toluene-d8					*102*	*100*	*78-128*			
4-Bromofluorobenzene					*97*	*86*	*71-130*			
Laboratory ID:	SB0604S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0428**	**0.0445**	0.0500	0.0500	86	89	55-126	4	17	
Benzene	**0.0400**	**0.0420**	0.0500	0.0500	80	84	65-121	5	16	
Trichloroethene	**0.0461**	**0.0511**	0.0500	0.0500	92	102	74-126	10	16	
Toluene	**0.0435**	**0.0471**	0.0500	0.0500	87	94	71-121	8	16	
Chlorobenzene	**0.0473**	**0.0501**	0.0500	0.0500	95	100	72-123	6	15	
Surrogate:										
Dibromofluoromethane					*97*	*96*	*74-131*			
Toluene-d8					*106*	*108*	*78-128*			
4-Bromofluorobenzene					*99*	*96*	*71-130*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Naphthalene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
2-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
1-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Acenaphthylene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Acenaphthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Fluorene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Phenanthrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Anthracene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Fluoranthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Pyrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[a]anthracene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Chrysene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[b]fluoranthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo(j,k)fluoranthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[a]pyrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Dibenz[a,h]anthracene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[g,h,i]perylene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*75*	*46 - 113*				
Pyrene-d10	*90*	*45 - 114*				
Terphenyl-d14	*87*	*49 - 121*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0605S2					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*46 - 113*				
Pyrene-d10	*86*	*45 - 114*				
Terphenyl-d14	*85*	*49 - 121*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0605S2									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0765**	**0.0724**	0.0833	0.0833	92	87	60 - 116	6	16	
Acenaphthylene	**0.0880**	**0.0847**	0.0833	0.0833	106	102	60 - 125	4	15	
Acenaphthene	**0.0839**	**0.0813**	0.0833	0.0833	101	98	60 - 121	3	15	
Fluorene	**0.0932**	**0.0831**	0.0833	0.0833	112	100	65 - 126	11	15	
Phenanthrene	**0.0907**	**0.0778**	0.0833	0.0833	109	93	65 - 120	15	15	
Anthracene	**0.0949**	**0.0871**	0.0833	0.0833	114	105	67 - 125	9	15	
Fluoranthene	**0.0939**	**0.0890**	0.0833	0.0833	113	107	66 - 125	5	15	
Pyrene	**0.0927**	**0.0870**	0.0833	0.0833	111	104	62 - 125	6	15	
Benzo[a]anthracene	**0.0939**	**0.0873**	0.0833	0.0833	113	105	72 - 129	7	15	
Chrysene	**0.0939**	**0.0860**	0.0833	0.0833	113	103	66 - 123	9	15	
Benzo[b]fluoranthene	**0.0874**	**0.0825**	0.0833	0.0833	105	99	68 - 128	6	15	
Benzo(j,k)fluoranthene	**0.0985**	**0.0907**	0.0833	0.0833	118	109	63 - 128	8	16	
Benzo[a]pyrene	**0.0981**	**0.0879**	0.0833	0.0833	118	106	66 - 130	11	15	
Indeno(1,2,3-c,d)pyrene	**0.0903**	**0.0856**	0.0833	0.0833	108	103	63 - 135	5	15	
Dibenz[a,h]anthracene	**0.0842**	**0.0806**	0.0833	0.0833	101	97	65 - 130	4	15	
Benzo[g,h,i]perylene	**0.0923**	**0.0854**	0.0833	0.0833	111	103	66 - 127	8	15	
Surrogate:										
2-Fluorobiphenyl					*85*	*87*	*46 - 113*			
Pyrene-d10					*106*	*97*	*45 - 114*			
Terphenyl-d14					*101*	*92*	*49 - 121*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Aroclor 1016	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**22**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**18**	5.1	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Aroclor 1016	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**8.5**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**6.6**	1.1	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**8.1**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**7.4**	1.0	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Aroclor 1016	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**12**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**9.2**	1.1	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*---*	*46-125*				S
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*100*	*46-125*				
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Aroclor 1016	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*99*	*46-125*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*88*	*46-125*				
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*94*	*46-125*				
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*103*	*46-125*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Aroclor 1016	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*89*	*46-125*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S2					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*103*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	06-050-05										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.466**	**0.496**	0.500	0.500	ND	**93**	**99**	43-125	6	15	
Surrogate:											
DCB						*95*	*97*	*46-125*			

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Arsenic	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**58**	2.5	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**30**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**34**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**7.5**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.25	EPA 7471B	6-8-20	6-8-20	
Nickel	**31**	2.5	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**38**	2.5	EPA 6010D	6-4-20	6-4-20	
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Arsenic	**12**	11	EPA 6010D	6-4-20	6-4-20	
Barium	**74**	2.7	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.54	EPA 6010D	6-4-20	6-4-20	
Chromium	**66**	0.54	EPA 6010D	6-4-20	6-4-20	
Copper	**32**	1.1	EPA 6010D	6-4-20	6-4-20	
Lead	**8.5**	5.4	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.27	EPA 7471B	6-8-20	6-8-20	
Nickel	**36**	2.7	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	11	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.1	EPA 6010D	6-4-20	6-4-20	
Zinc	**85**	2.7	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Arsenic	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**76**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.52	EPA 6010D	6-4-20	6-4-20	
Chromium	**42**	0.52	EPA 6010D	6-4-20	6-4-20	
Copper	**32**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**10**	5.2	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**31**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**51**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Arsenic	**24**	11	EPA 6010D	6-4-20	6-4-20	
Barium	**86**	2.7	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.53	EPA 6010D	6-4-20	6-4-20	
Chromium	**200**	0.53	EPA 6010D	6-4-20	6-4-20	
Copper	**44**	1.1	EPA 6010D	6-4-20	6-4-20	
Lead	**26**	5.3	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.27	EPA 7471B	6-8-20	6-8-20	
Nickel	**53**	2.7	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	11	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.1	EPA 6010D	6-4-20	6-4-20	
Zinc	**63**	2.7	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Arsenic	**17**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**54**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**23**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**20**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**9.8**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**16**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**57**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Arsenic	**15**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**47**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.52	EPA 6010D	6-4-20	6-4-20	
Chromium	**21**	0.52	EPA 6010D	6-4-20	6-4-20	
Copper	**19**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**12**	5.2	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**15**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**64**	2.6	EPA 6010D	6-4-20	6-4-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Arsenic	**18**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**64**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**27**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**24**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**12**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**19**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**62**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Arsenic	**17**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**47**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**21**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**19**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**12**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**14**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**55**	2.6	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Arsenic	**19**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**48**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**0.72**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**150**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**40**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**86**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**49**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**200**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Arsenic	**18**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**46**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.52	EPA 6010D	6-4-20	6-4-20	
Chromium	**36**	0.52	EPA 6010D	6-4-20	6-4-20	
Copper	**23**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**23**	5.2	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**19**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**79**	2.6	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604SH1					
Arsenic	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**ND**	2.5	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.50	EPA 6010D	6-4-20	6-4-20	
Chromium	**ND**	0.50	EPA 6010D	6-4-20	6-4-20	
Copper	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**ND**	5.0	EPA 6010D	6-4-20	6-4-20	
Nickel	**ND**	2.5	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**ND**	2.5	EPA 6010D	6-4-20	6-4-20	
Laboratory ID:	MB0608S1					
Mercury	**ND**	0.25	EPA 7471B	6-8-20	6-8-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-229-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**51.6**	**50.2**	NA	NA		NA		NA	3	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**19.2**	**18.0**	NA	NA		NA		NA	7	20	
Copper	**21.5**	**21.6**	NA	NA		NA		NA	0	20	
Lead	**5.15**	**6.45**	NA	NA		NA		NA	22	20	C
Nickel	**26.5**	**23.3**	NA	NA		NA		NA	13	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**45.2**	**42.4**	NA	NA		NA		NA	6	20	
Laboratory ID:	06-073-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-229-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**88.6**	**89.0**	100	100	ND	**89**	**89**	75-125	1	20	
Barium	**138**	**141**	100	100	51.6	**86**	**89**	75-125	2	20	
Cadmium	**41.6**	**41.8**	50.0	50.0	ND	**83**	**84**	75-125	0	20	
Chromium	**104**	**108**	100	100	19.2	**85**	**89**	75-125	4	20	
Copper	**69.5**	**66.6**	50.0	50.0	21.5	**96**	**90**	75-125	4	20	
Lead	**214**	**224**	250	250	5.15	**84**	**88**	75-125	4	20	
Nickel	**108**	**108**	100	100	26.5	**81**	**82**	75-125	0	20	
Selenium	**86.0**	**86.2**	100	100	ND	**86**	**86**	75-125	0	20	
Silver	**22.5**	**22.9**	25.0	25.0	ND	**90**	**91**	75-125	2	20	
Zinc	**126**	**123**	100	100	45.2	**81**	**78**	75-125	2	20	
Laboratory ID:	06-073-01										
Mercury	**0.551**	**0.570**	0.500	0.500	0.0597	**98**	**102**	80-120	3	20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.65**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.054**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.29**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.63**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.054**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.57**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.12**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.078**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.077**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.22**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.10**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.11**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.26**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.10**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.25**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.14**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0605TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Laboratory ID:	MB0605T1					
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Laboratory ID:	MB0605TM2					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Laboratory ID:	MB0605T2					
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-050-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**0.654**	**0.652**	NA	NA		NA		NA	0	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**0.0542**	**0.0556**	NA	NA		NA		NA	3	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Laboratory ID:	06-050-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	06-050-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.99**	**3.98**	4.00	4.00	ND	**100**	**100**	75-125	0	20	
Barium	**4.18**	**4.23**	4.00	4.00	0.654	**88**	**89**	75-125	1	20	
Cadmium	**1.90**	**1.91**	2.00	2.00	ND	**95**	**95**	75-125	1	20	
Chromium	**3.73**	**3.75**	4.00	4.00	0.0542	**92**	**92**	75-125	1	20	
Lead	**8.92**	**8.93**	10.0	10.0	ND	**89**	**89**	75-125	0	20	
Selenium	**3.97**	**3.94**	4.00	4.00	ND	**99**	**98**	75-125	1	20	
Silver	**0.906**	**0.906**	1.00	1.00	ND	**91**	**91**	75-125	0	20	
Laboratory ID:	06-050-01										
Mercury	**0.0479**	**0.0478**	0.0500	0.0500	ND	**96**	**96**	75-125	0	20	

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Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
TS-SW-WC	06-050-01	**1**	6-3-20
TS-NW-WC	06-050-02	**8**	6-3-20
TS-NE-WC	06-050-03	**3**	6-3-20
TS-SE-WC	06-050-04	**6**	6-3-20
BH-S-SE	06-050-05	**2**	6-3-20
BH-S-SW	06-050-06	**3**	6-3-20
BH-S-M-E	06-050-07	**2**	6-3-20
BH-S-M-W	06-050-08	**2**	6-3-20
BH-S-NE	06-050-09	**3**	6-3-20
BH-S-NW	06-050-10	**4**	6-3-20

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: OH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: Brian Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-050

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A						% Moisture
1	TS-SW-WC	6-3-20	0930	Solid	5			X	X	X					X				X		X						X
2	TS-NW-WC		0950																								
3	TS-NE-WC		1020										Cancelled DB X														
4	TS-SE-WC		1055																								
5	BH-S-SE		1135																								
6	BH-S-SW		1220																								
7	BH-S-M-E		1250																								
8	BH-S-M-W		1325		1									X													
9	BH-S-NE		1355		1																						
10	BH-S-NW		1430		1																						

	Signature	Company	Date	Time
Relinquished		OH Env.	6-3-20	1600
Received	Nathan Green	OSE	6/3/20	1600
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

DANGEROUS WASTE DESIGNATION FORM –
Baghouse Clean Closure Designation Sampling

Star Forge, Former Jorgenson Forge Property

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name Baghouse Area(BHA) Clean Closure Designation Sampling

Generation Process: Concrete dust generated from concrete core samples collected from floor of the Baghouse Area performed as part of site Clean Closure activities.

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813 **Other Descriptions (i.e. Shop, Project, Etc.):**	No waste will be generated during site demolition.

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☐Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☒N/A
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic	**PCB Content**	**TCLP Metals**
☐Ignitable **[D001]** ☐Corrosive **[D002]** ☐Reactive **[D003]** ☐Toxic **[D004 – D043]** **List Here:**	☒Not Detected **[non TSCA or State Regulated]** ☐Not Sampled ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]** ☐≥ 50 ppm **[TSCA Regulated]** ☐< 1 ppm Note: **IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)**	☐Arsenic ≥ 5.0 mg/L **[D004]** ☐Barium ≥ 100.0 mg/L **[D005]** ☐Cadmium ≥ 1.0 mg/L **[D006]** ☐Chromium ≥ 5.0 mg/L **[D007]** ☐Lead ≥ 5.0 mg/L **[D008]** ☐Mercury ≥ 0.2 mg/L **[D009]** ☐Selenium ≥ 1.0 mg/L **[D010]** ☐Silver ≥ 5.0 mg/L **[D011]** Check if: ☐Assumed ☒TCLP Conducted ☐TCLP Not Conducted **Comments:** All samples passed TCLP

Total Metals ☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:	22	☐ND
Barium:	72	☐ND
Cadmium:	1.2	☐ND
Chromium:	150	☐ND
Lead:	130	☐ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	40	☐ND
Nickel:	29	☐ND
Zinc:	220	☐ND

Comments: Total metals data represents the highest metals concentration across all samples.

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Concrete Dust	100

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**

☒ **Listed Source Waste (F or K List):** ***K061***
☐ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

For the purposes of Clean Closure in accordance with the Dangerous Waste Regulations, we have identified all of the Dangerous Waste Management Units subject to Clean Closure. The Baghouse had been identified by historical documents and interviews with facility staff that worked at the facility when it was operational and includes the approximately 4,000 SF baghouse building and related equipment, including the baghouse tunnel, that conveyed air and dust from the melt shop to the baghouse. In addition, the baghouse processing area and concrete slab is divided by a wall thereby creating two separate areas denoted as Baghouse North and Baghouse South and electrical utility trench that runs along the eastern perimeter of the baghouse was found to have significant sediment accumulation presumably contaminated with baghouse dust. The baghouse dust was designated as a K061 waste stream as it meets the definition of K061 Specific Source Waste from iron and steel sources in accordance with WAC 173-303-9904.

The BHA has been emptied of all Hazardous and Dangerous Waste and cleaned. From December 2019 to March 2020, Clean Harbors Environmental Services conducted extensive dust removal and cleaning of the baghouse equipment. The baghouse equipment, including the baghouse tunnel was cleaned to Alternative Treatment Standards using a combination of high-pressure steam and water sprays and physical scrubbing. The utility trench and concrete slab of the baghouse was cleaned using high pressure steam and water sprays in June 2020 by DH Environmental as part of the baghouse DWMU evaluation. Approximately 119,000 lbs of dust and debris was removed and disposed of off-site from the baghouse tunnel and the baghouse structures. Since K061 Listed Hazardous Waste Code, all waste generated from cleaning activities was designated as K061 and managed as such offsite.

On June 3, 2020, DH Environmental conducted a sampling effort to determine if containment area of the BHA is considered Clean under WAC 173-303-200(12). The sampling design for the BHA consisted of gridding each area into four quadrants. A minimum of one sample was collected from the concrete floor surface in each of the sampling grids. Some minor staining was present, and samples were collected from this area. In grind areas where staining was not present, the sample was collected from the center of each grid as described in the Sampling and Analysis Plan. Samples were collected by using a roto-hammer concrete drill and drilling into the concrete surface approximately 4-inches and extracting the drill bit. The drill cuttings were scraped up onto a dedicated piece of cardstock and placed into laboratory supplied sampling containers. Multiple drill holes were required to obtain sufficient sample volume, in which case the drill holes were located in close proximity to each other.

Some representative samples exhibited total metals concentrations above 20 times the federal regulatory limit. However, despite the high total concentrations, all samples "passed" the TCLP. In addition, the total analysis of volatiles by EPA 8260C and PAHs by EPA 8270D did not indicate the concrete should designate as characteristic for any RCRA volatiles or semi volatile compounds. Analysis has identified low level trace constituents listed in 40 CFR 261.31 (and WAC 173-303-9904), Wastes from Non- Specific Sources. For example, acetone was detected at a highest concentration of 0.05 mg/kg. However, the original processes generating any of the trace constituents in question are unknown and therefore RCRA F Series is not applicable. This designation is consistent with USEPA interpretation of unknown F-Listed trace constituents: Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not an F-listed hazardous waste.

Based on the results, we have concluded that the "Baghouse North" concrete slab designates as a K061 listed waste and should be considered hazardous debris subject to further contamination or removal.

Pursuant to 40 CFR Appendix VII to Part 261 - Basis for Listing Hazardous Waste, K061 is listed for hexavalent chromium, lead, and cadmium. Therefore, we propose that the basis for listing and/or delisting the concrete debris associated with the Baghouse DWMU should be demonstration that the concrete concentrations of hexavalent chromium, lead, and cadmium are below MTCA Method A levels for unrestricted land use. The concentrations of lead and cadmium are below the MTCA Method A levels of 250 mg/kg and 2 mg/kg, respectively. The concentration of trivalent chromium is well below the MTCA Method A level of 2,000 mg/kg. However, hexavalent chromium was found in one location in the Baghouse North at 24 mg/kg, which is above the 19 mg/kg, MTCA Method A cleanup level. The Baghouse concrete containment also exceeds MTCA Method A unrestricted cleanup levels for diesel range hydrocarbons.

Attachments:
☐**Field Report**
☒**Photo Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2005-232, 2005-232B)
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☒ **RCRA Hazardous Waste**
RCRA Waste Codes: ***K061***

☐ **TSCA Regulated Waste**
TSCA Description:

☐ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description:

Designation Performed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-30-2020

Designation Reviewed by: David Hill, PE, CHMM, CPEA
Title: Principal Engineer Date: 06-30-2020

Photo Log
Baghouse Designation Sampling
5/29/2020 (Baghouse North) and 6/3/2020 (Baghouse South)
Star Forge, Tukwila, Washington



Photo 1: Sample location BH-N-NE.



Photo 2: Sample location BH-N-NW.



Photo 3: Sample location BH-N-SE.



Photo 4: Sample location BH-N-SW.



Photo 5: Sample location BH-S-NE.



Photo 6: Sample location BH-S-M-W.



Photo 7: Sample location BH-S-M-E.

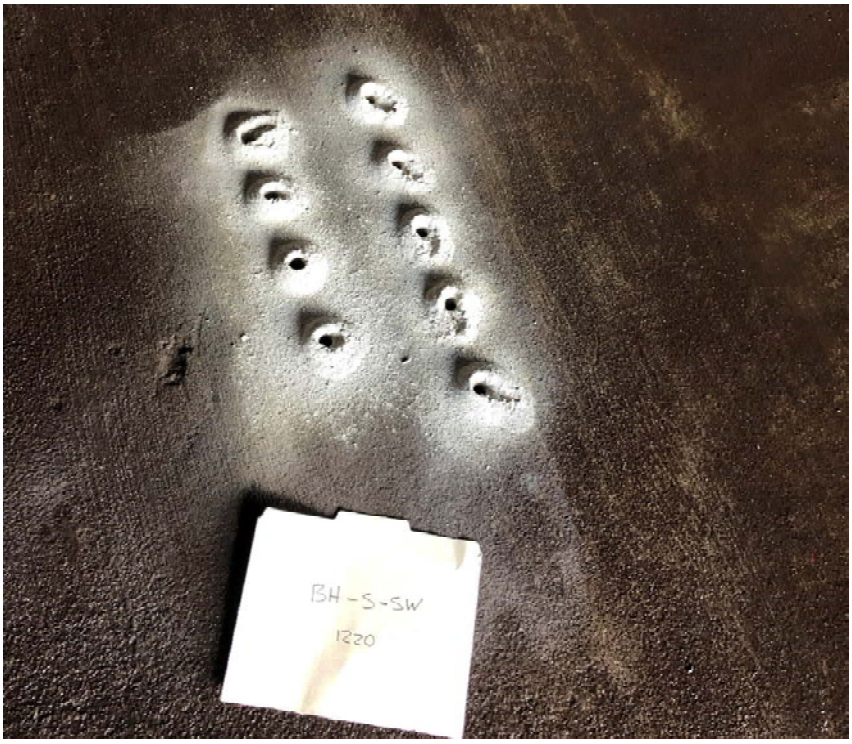


Photo 8: Sample location BH-S-SW.



Photo 9: Sample location BH-S-SE.



Photo 10: Sample location BH-NE-Trench-WC-01.



Photo 11: Sample location BH-SE-Trench-WC-02.



Photo 12: Sample location BH-SE-Trench-WC-03.

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-N-SW' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

					Concentration (mass %)				
Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	22	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**2.20E-03**		
Barium	7440-39-3	47	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	43	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**4.30E-03**	
Copper	7440-50-8	24	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**2.40E-03**			
Lead	7439-92-1	14	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**1.40E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	15	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.50E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	63	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**6.30E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.032	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**3.20E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-N-SW' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	87	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0024000**	**0.0085000**	**0.0057000**	**0.0015**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.40E-03	8.50E-03	5.70E-03	1.50E-03		
	0.00E+00	2.40E-04	8.50E-05	5.70E-06	1.50E-07	**0.0003309**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Conversion Factor 0.0001

Units Displayed as mg/kg

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	21	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			2.10E-03		
Barium	7440-39-3	48	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	71	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				7.10E-03	
Copper	7440-50-8	33	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		3.30E-03			
Lead	7439-92-1	59	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				5.90E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	26	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.60E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	130	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.30E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.050	LC Rat Inhalation 50.10 mg/kg[1]	D					5.00E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	2900	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0033000**	**0.0151000**	**0.0130000**	**0.0026**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	3.30E-03	1.51E-02	1.30E-02	2.61E-03		
	0.00E+00	3.30E-04	1.51E-04	1.30E-05	2.61E-07	**0.0004943**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-N-SE' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	16	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.60E-03		
Barium	7440-39-3	62	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	1.2	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	1.20E-04				
Chromium	7440-47-3	55	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				5.50E-03	
Copper	7440-50-8	29	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.90E-03			
Lead	7439-92-1	130	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.30E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	22	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.20E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	220	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			2.20E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.014	LC Rat Inhalation 50.10 mg/kg[1]	D					1.40E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
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Sample Date: 05-29-2020
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-N-SE' (Lab Report 2005-232)
Sample Date: 05-29-2020
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	0.0078	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				7.80E-07	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	ND	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0001200**	**0.0029000**	**0.0236000**	**0.0185008**	**0.0022**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	1.20E-04	2.90E-03	2.36E-02	1.85E-02	2.20E-03		
	1.20E-04	2.90E-04	2.36E-04	1.85E-05	2.20E-07	**0.0006647**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-N-NE' (Lab Report 2005-232)
Sample Date: 05-29-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	22	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			2.20E-03		
Barium	7440-39-3	67	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	39	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				3.90E-03	
Copper	7440-50-8	26	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.60E-03			
Lead	7439-92-1	33	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				3.30E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	21	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.10E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	110	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.10E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.018	LC Rat Inhalation 50.10 mg/kg[1]	D					1.80E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	1200	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0026000**	**0.0132000**	**0.0072000**	**0.0021**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.60E-03	1.32E-02	7.20E-03	2.10E-03		
	0.00E+00	2.60E-04	1.32E-04	7.20E-06	2.10E-07	**0.0003994**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

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Waste Stream: Concrete
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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

					Concentration (mass %)				
Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	17	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**1.70E-03**		
Barium	7440-39-3	54	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	23	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.30E-03**	
Copper	7440-50-8	20	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**2.00E-03**			
Lead	7439-92-1	9.8	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**9.80E-04**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	16	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.60E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	57	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**5.70E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.025	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**2.50E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	220	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0020000**	**0.0074000**	**0.0032800**	**0.0016**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.00E-03	7.40E-03	3.28E-03	1.60E-03		
	0.00E+00	2.00E-04	7.40E-05	3.28E-06	1.60E-07	**0.0002774**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-S-SW' (Lab Report 2006-050)
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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

					Concentration (mass %)				
Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	15	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**1.50E-03**		
Barium	7440-39-3	47	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	21	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.10E-03**	
Copper	7440-50-8	19	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.90E-03**			
Lead	7439-92-1	12	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**1.20E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	15	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.50E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	64	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**6.40E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.029	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**2.90E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	ND	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0019000**	**0.0079000**	**0.0033000**	**0.0015**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.90E-03	7.90E-03	3.30E-03	1.50E-03		
	0.00E+00	1.90E-04	7.90E-05	3.30E-06	1.50E-07	**0.0002725**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-S-M-E' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	18	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**1.80E-03**		
Barium	7440-39-3	64	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	27	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.70E-03**	
Copper	7440-50-8	24	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**2.40E-03**			
Lead	7439-92-1	12	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**1.20E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	19	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.90E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	62	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**6.20E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.017	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**1.70E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	ND	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0024000**	**0.0080000**	**0.0039000**	**0.0019**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.40E-03	8.00E-03	3.90E-03	1.90E-03		
	0.00E+00	2.40E-04	8.00E-05	3.90E-06	1.90E-07	**0.0003241**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-S-M-W' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	17	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.70E-03		
Barium	7440-39-3	47	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	21	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.10E-03	
Copper	7440-50-8	19	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.90E-03			
Lead	7439-92-1	12	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.20E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	14	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.40E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	55	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			5.50E-03		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-S-M-W' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	ND	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0019000**	**0.0072000**	**0.0033000**	**0.0014**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.90E-03	7.20E-03	3.30E-03	1.40E-03		
	0.00E+00	1.90E-04	7.20E-05	3.30E-06	1.40E-07	**0.0002654**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-S-NE' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	19	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**1.90E-03**		
Barium	7440-39-3	48	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	150	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**1.50E-02**	
Copper	7440-50-8	40	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**4.00E-03**			
Lead	7439-92-1	86	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**8.60E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	49	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**4.90E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	200	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**2.00E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.020	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**2.00E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	ND	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0040000**	**0.0219000**	**0.0236000**	**0.0049**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	4.00E-03	2.19E-02	2.36E-02	4.90E-03		
	0.00E+00	4.00E-04	2.19E-04	2.36E-05	4.90E-07	**0.0006431**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	18	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.80E-03		
Barium	7440-39-3	46	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	nd	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	36	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				3.60E-03	
Copper	7440-50-8	23	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.30E-03			
Lead	7439-92-1	23	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.30E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	19	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.90E-03
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	79	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			7.90E-03		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.016	LC Rat Inhalation 50.10 mg/kg[1]	D					1.60E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-S-NW' (Lab Report 2006-050)
Sample Date: 06-03-2020
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Gasoline Range	8052-41-3	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	ND	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	ND	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0023000**	**0.0097000**	**0.0059000**	**0.0019**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.30E-03	9.70E-03	5.90E-03	1.90E-03		
	0.00E+00	2.30E-04	9.70E-05	5.90E-06	1.90E-07	**0.0003331**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-NE-Trench-01' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001 | Concentration (mass %)

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	34	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	16	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.60E-03**	
Copper	7440-50-8	18	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**1.80E-03**			
Lead	7439-92-1	13	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**1.30E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	11	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**1.10E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	40	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**4.00E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.023	LC Rat Inhalation 50.10 mg/kg[1]	D					**2.30E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-NE-Trench-01' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-NE-Trench-01' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[4]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0018000**	**0.0040000**	**0.0029000**	**0.0011**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.80E-03	4.00E-03	2.90E-03	1.10E-03		
	0.00E+00	1.80E-04	4.00E-05	2.90E-06	1.10E-07	**0.0002230**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-SE-Trench-02' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration[4]	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	72	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	23	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**2.30E-03**	
Copper	7440-50-8	30	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**3.00E-03**			
Lead	7439-92-1	12	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**1.20E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	9.2	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**9.20E-04**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	64	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**6.40E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.013	LC Rat Inhalation 50.10 mg/kg[1]	D					**1.30E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-SE-Trench-02' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-SE-Trench-02' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[4]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0030000**	**0.0064000**	**0.0035000**	**0.0009**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	3.00E-03	6.40E-03	3.50E-03	9.21E-04		
	0.00E+00	3.00E-04	6.40E-05	3.50E-06	9.21E-08	**0.0003676**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-SE-Trench-03' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	67	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	22	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**2.20E-03**	
Copper	7440-50-8	28	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**2.80E-03**			
Lead	7439-92-1	12	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**1.20E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	20	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**2.00E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	54	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**5.40E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-SE-Trench-03' (Lab Report 2006-184)
Sample Date: 06-17-2020
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete
Applicable Sample IDs: 'BH-SE-Trench-03' (Lab Report 2006-184)
Sample Date: 06-17-2020
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0028000**	**0.0054000**	**0.0034000**	**0.0020**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.80E-03	5.40E-03	3.40E-03	2.00E-03		
	0.00E+00	2.80E-04	5.40E-05	3.40E-06	2.00E-07	**0.0003376**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 2, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-232

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on May 29, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

Case Narrative

Samples were collected on May 29, 2020 and received by the laboratory on May 29, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

The percent recovery for surrogate Dibromofluoromethane is outside of the control limits for all samples due to matrix effects.

Total Metals EPA 6010D/7471B Analysis

The duplicate RPD for Nickel is outside control limits due to sample inhomogeneity.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Gasoline	**ND**	5.2	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Gasoline	**ND**	5.9	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Gasoline	**ND**	5.7	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Gasoline	**ND**	5.5	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*58-129*				
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Gasoline	**ND**	5.9	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Gasoline	**ND**	5.6	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*58-129*				
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Gasoline	**ND**	5.5	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Gasoline	**ND**	5.6	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*93*	*58-129*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601S1					
Gasoline	**ND**	5.0	NWTPH-Gx	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*88*	*89*	*58-129*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Diesel Range Organics	**76**	26	NWTPH-Dx	5-29-20	6-1-20	N
Lube Oil	**1300**	52	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Diesel Range Organics	**53**	26	NWTPH-Dx	5-29-20	6-1-20	N
Lube Oil	**950**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Diesel Range Organics	**76**	26	NWTPH-Dx	5-29-20	6-1-20	N
Lube Oil	**860**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Diesel Range Organics	**4700**	130	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil Range Organics	**2400**	260	NWTPH-Dx	5-29-20	6-1-20	N1
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				F
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Diesel Range Organics	**ND**	26	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil	**87**	52	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Diesel Range Organics	**ND**	130	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil	**2900**	260	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Diesel Range Organics	**ND**	26	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil Range Organics	**ND**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*52*	*50-150*				
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Diesel Range Organics	**ND**	26	NWTPH-Dx	5-29-20	6-1-20	
Lube Oil	**1200**	51	NWTPH-Dx	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*59*	*50-150*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	5-29-20	5-29-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	SB0529S1										
	ORIG	DUP									
Diesel Fuel #2	**90.4**	**87.6**	NA	NA		NA		NA	3	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*90*	*89*	*50-150*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.26	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0080	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	0.044	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	0.0086	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*24*	*74-131*				Q
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*89*	*71-130*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.041	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0079	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*21*	*74-131*				Q
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	ND	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0080	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	0.0049	0.0017	EPA 8260D	5-30-20	5-30-20	Y
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	0.0032	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	0.011	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*25*	*74-131*				Q
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*95*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Acetone	0.18	0.010	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0077	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Butanone	0.045	0.0052	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	0.0093	0.0052	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*41*	*74-131*				Q
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.032	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0080	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0071	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0021	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0053	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*32*	*74-131*				Q
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Dichlorodifluoromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Acetone	0.050	0.0096	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0072	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0015	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0019	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*35*	*74-131*				Q
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Dichlorodifluoromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Acetone	0.014	0.0097	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0073	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0015	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0019	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0048	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*42*	*74-131*				Q
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*102*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Acetone	0.018	0.011	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0081	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0071	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0022	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0054	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*42*	*74-131*				Q
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0530S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Acetone	ND	0.010	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0075	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0530S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*96*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0530S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0523**	**0.0483**	0.0500	0.0500	105	97	55-126	8	17	
Benzene	**0.0478**	**0.0444**	0.0500	0.0500	96	89	65-121	7	16	
Trichloroethene	**0.0515**	**0.0500**	0.0500	0.0500	103	100	74-126	3	16	
Toluene	**0.0504**	**0.0483**	0.0500	0.0500	101	97	71-121	4	16	
Chlorobenzene	**0.0539**	**0.0523**	0.0500	0.0500	108	105	72-123	3	15	
Surrogate:										
Dibromofluoromethane					*97*	*96*	*74-131*			
Toluene-d8					*98*	*98*	*78-128*			
4-Bromofluorobenzene					*100*	*99*	*71-130*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Naphthalene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
2-Methylnaphthalene	**0.056**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
1-Methylnaphthalene	**0.045**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthylene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Fluorene	**0.092**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Phenanthrene	**0.25**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Anthracene	**0.042**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Fluoranthene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Pyrene	**0.28**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]anthracene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Chrysene	**ND**	0.034	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[b]fluoranthene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo(j,k)fluoranthene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]pyrene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Dibenz[a,h]anthracene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[g,h,i]perylene	**ND**	0.0069	EPA 8270E/SIM	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*59*	*46 - 113*				
Pyrene-d10	*76*	*45 - 114*				
Terphenyl-d14	*85*	*49 - 121*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Naphthalene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
2-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
1-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthylene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Acenaphthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Fluorene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Phenanthrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Anthracene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Fluoranthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Pyrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]anthracene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Chrysene	**0.0078**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[b]fluoranthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo(j,k)fluoranthene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[a]pyrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Dibenz[a,h]anthracene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Benzo[g,h,i]perylene	**ND**	0.0068	EPA 8270E/SIM	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*46 - 113*				
Pyrene-d10	*88*	*45 - 114*				
Terphenyl-d14	*82*	*49 - 121*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*46 - 113*				
Pyrene-d10	*90*	*45 - 114*				
Terphenyl-d14	*90*	*49 - 121*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0529S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0621**	**0.0637**	0.0833	0.0833	75	76	60 - 116	3	16	
Acenaphthylene	**0.0691**	**0.0666**	0.0833	0.0833	83	80	60 - 125	4	15	
Acenaphthene	**0.0696**	**0.0674**	0.0833	0.0833	84	81	60 - 121	3	15	
Fluorene	**0.0755**	**0.0757**	0.0833	0.0833	91	91	65 - 126	0	15	
Phenanthrene	**0.0749**	**0.0747**	0.0833	0.0833	90	90	65 - 120	0	15	
Anthracene	**0.0783**	**0.0766**	0.0833	0.0833	94	92	67 - 125	2	15	
Fluoranthene	**0.0788**	**0.0806**	0.0833	0.0833	95	97	66 - 125	2	15	
Pyrene	**0.0810**	**0.0792**	0.0833	0.0833	97	95	62 - 125	2	15	
Benzo[a]anthracene	**0.0923**	**0.0879**	0.0833	0.0833	111	106	72 - 129	5	15	
Chrysene	**0.0756**	**0.0776**	0.0833	0.0833	91	93	66 - 123	3	15	
Benzo[b]fluoranthene	**0.0848**	**0.0772**	0.0833	0.0833	102	93	68 - 128	9	15	
Benzo(j,k)fluoranthene	**0.0794**	**0.0839**	0.0833	0.0833	95	101	63 - 128	6	16	
Benzo[a]pyrene	**0.0830**	**0.0785**	0.0833	0.0833	100	94	66 - 130	6	15	
Indeno(1,2,3-c,d)pyrene	**0.0799**	**0.0799**	0.0833	0.0833	96	96	63 - 135	0	15	
Dibenz[a,h]anthracene	**0.0804**	**0.0791**	0.0833	0.0833	97	95	65 - 130	2	15	
Benzo[g,h,i]perylene	**0.0817**	**0.0807**	0.0833	0.0833	98	97	66 - 127	1	15	
Surrogate:										
2-Fluorobiphenyl					*81*	*75*	*46 - 113*			
Pyrene-d10					*93*	*90*	*45 - 114*			
Terphenyl-d14					*88*	*89*	*49 - 121*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Aroclor 1016	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*92*	*46-125*				
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*46-125*				
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*99*	*46-125*				
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Aroclor 1016	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*46-125*				
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*89*	*46-125*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*72*	*46-125*				
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-29-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*61*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0529S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.455**	**0.469**	0.500	0.500	N/A	**91**	**94**	50-134	3	18	
Surrogate:											
DCB						*90*	*89*	*46-125*			

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**230**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.52	EPA 6010D	6-1-20	6-1-20	
Chromium	**26**	0.52	EPA 6010D	6-1-20	6-1-20	
Copper	**30**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.2	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**23**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**69**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**250**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**0.58**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**25**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**27**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**16**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**72**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**260**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**27**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**25**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**23**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**64**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**210**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**20**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**31**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**16**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**52**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Arsenic	**22**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**47**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.52	EPA 6010D	6-1-20	6-1-20	
Chromium	**43**	0.52	EPA 6010D	6-1-20	6-1-20	
Copper	**24**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**14**	5.2	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**15**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**63**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Arsenic	**21**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**48**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**71**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**33**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**59**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**26**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**130**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Arsenic	**16**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**62**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**1.2**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**55**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**29**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**130**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**22**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**220**	2.6	EPA 6010D	6-1-20	6-1-20	
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Arsenic	**22**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**67**	2.6	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.51	EPA 6010D	6-1-20	6-1-20	
Chromium	**39**	0.51	EPA 6010D	6-1-20	6-1-20	
Copper	**26**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**33**	5.1	EPA 6010D	6-1-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**21**	2.6	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**110**	2.6	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601SH1					
Arsenic	**ND**	10	EPA 6010D	6-1-20	6-1-20	
Barium	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.50	EPA 6010D	6-1-20	6-1-20	
Chromium	**ND**	0.50	EPA 6010D	6-1-20	6-1-20	
Copper	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.0	EPA 6010D	6-1-20	6-1-20	
Nickel	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Laboratory ID:	MB0601S1					
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**224**	**237**	NA	NA		NA		NA	5	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**25.1**	**28.5**	NA	NA		NA		NA	13	20	
Copper	**29.6**	**29.0**	NA	NA		NA		NA	2	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Nickel	**22.0**	**27.2**	NA	NA		NA		NA	21	20	L
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**67.1**	**70.9**	NA	NA		NA		NA	5	20	
Laboratory ID:	05-208-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-232-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**90.6**	**89.5**	100	100	ND	**91**	**90**	75-125	1	20	
Barium	**343**	**345**	100	100	224	**119**	**120**	75-125	0	20	
Cadmium	**44.8**	**45.0**	50.0	50.0	ND	**90**	**90**	75-125	0	20	
Chromium	**99.8**	**102**	100	100	25.1	**75**	**77**	75-125	2	20	
Copper	**77.4**	**78.1**	50.0	50.0	29.6	**96**	**97**	75-125	1	20	
Lead	**205**	**208**	250	250	ND	**82**	**83**	75-125	1	20	
Nickel	**99.9**	**105**	100	100	22.0	**78**	**83**	75-125	5	20	
Selenium	**75.3**	**87.5**	100	100	ND	**75**	**88**	75-125	15	20	
Silver	**20.0**	**19.9**	25.0	25.0	ND	**80**	**79**	75-125	1	20	
Zinc	**157**	**158**	100	100	67.1	**90**	**91**	75-125	1	20	
Laboratory ID:	05-208-01										
Mercury	**0.454**	**0.498**	0.500	0.500	0.00500	**90**	**99**	80-120	9	20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-NW-WC**					
Laboratory ID:	05-232-01					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.77**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.12**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**CAA-NE-WC**					
Laboratory ID:	05-232-02					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.76**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.094**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**CAA-SW-WC**					
Laboratory ID:	05-232-03					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.79**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.11**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**CAA-SE-WC**					
Laboratory ID:	05-232-04					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.79**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.087**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.21**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.86**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.16**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.22**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.49**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.20**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.12**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T11					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Laboratory ID:	MB0602TM2					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T2					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-208-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**0.684**	**0.654**	NA	NA		NA	NA	4	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-208-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-138-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.376**	**0.380**	NA	NA		NA	NA	1	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-138-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-208-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.79**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	0	20	
Barium	**3.69**	**3.67**	4.00	4.00	ND	**92**	**92**	75-125	1	20	
Cadmium	**1.96**	**1.95**	2.00	2.00	ND	**98**	**98**	75-125	1	20	
Chromium	**4.21**	**4.21**	4.00	4.00	0.684	**88**	**88**	75-125	0	20	
Lead	**8.54**	**8.50**	10.0	10.0	ND	**85**	**85**	75-125	0	20	
Selenium	**3.88**	**3.91**	4.00	4.00	ND	**97**	**98**	75-125	1	20	
Silver	**0.904**	**0.908**	1.00	1.00	ND	**90**	**91**	75-125	0	20	
Laboratory ID:	05-208-01										
Mercury	**0.0490**	**0.0497**	0.0500	0.0500	ND	**98**	**99**	75-125	1	20	
Laboratory ID:	05-138-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.91**	**3.91**	4.00	4.00	ND	**98**	**98**	75-125	0	20	
Barium	**3.95**	**3.96**	4.00	4.00	0.376	**89**	**90**	75-125	0	20	
Cadmium	**1.94**	**1.97**	2.00	2.00	ND	**97**	**98**	75-125	1	20	
Chromium	**3.36**	**3.39**	4.00	4.00	ND	**84**	**85**	75-125	1	20	
Lead	**8.35**	**8.35**	10.0	10.0	ND	**84**	**84**	75-125	0	20	
Selenium	**3.91**	**3.83**	4.00	4.00	ND	**98**	**96**	75-125	2	20	
Silver	**0.894**	**0.896**	1.00	1.00	ND	**89**	**90**	75-125	0	20	
Laboratory ID:	05-138-01										
Mercury	**0.0472**	**0.0483**	0.0500	0.0500	ND	**94**	**97**	75-125	2	20	

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Date of Report: June 2, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
CAA-NW-WC	05-232-01	**3**	5-29-20
CAA-NE-WC	05-232-02	**3**	5-29-20
CAA-SW-WC	05-232-03	**3**	5-29-20
CAA-SE-WC	05-232-04	**3**	5-29-20
BH-N-SW	05-232-05	**4**	5-29-20
BH-N-NW	05-232-06	**3**	5-29-20
BH-N-SE	05-232-07	**2**	5-29-20
BH-N-NE	05-232-08	**2**	5-29-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 05-232

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley, B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A						% Moisture
1	CAA-NW-WC	5/29/2020	1050	Solid	5			X	X	X					X				X		X							X
2	CAA-NE-WC		1110																									
3	CAA-SW-WC		1125																									
4	CAA-SE-WC		1145											X														
5	BH-N-SW		1230																									
6	BH-N-NW		1245																									
7	BH-N-SE		1300											X														
8	BH-N-NE		1315																									

	Signature	Company	Date	Time
Relinquished		DH Environmental	5/29/2020	1430
Received		OSE	5/29/20	1430
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to Dave Hill & data@dhenviro.com

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 9, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-050

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 3, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

Case Narrative

Samples were collected on June 3, 2020 and received by the laboratory on June 3, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

The percent recovery for surrogate Dibromofluoromethane is outside of the control limits for samples BH-S-SE, BH-S-SW, BH-S-M-E, BH-S-M-W, BH-S-NE, and BH-S-NW due to sample matrix effects.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Gasoline	**ND**	5.4	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*58-129*				
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Gasoline	**ND**	5.6	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*58-129*				
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Gasoline	**ND**	4.9	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*58-129*				
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Gasoline	**ND**	5.8	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Gasoline	**ND**	5.3	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Gasoline	**ND**	5.2	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Gasoline	**ND**	5.3	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*58-129*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Gasoline	**ND**	5.2	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*58-129*				
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Gasoline	**ND**	5.9	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*58-129*				
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Gasoline	**ND**	6.0	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*58-129*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603S1					
Gasoline	**ND**	5.0	NWTPH-Gx	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*58-129*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-050-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*84*	*86*	*58-129*			

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Diesel Range Organics	**ND**	1300	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**20000**	2500	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Diesel Range Organics	**ND**	1400	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**15000**	2700	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Diesel Range Organics	**ND**	1300	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**20000**	2600	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Diesel Range Organics	**ND**	1300	NWTPH-Dx	6-4-20	6-5-20	
Lube Oil	**16000**	2700	NWTPH-Dx	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil	**220**	51	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	51	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	51	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Diesel Range Organics	**ND**	26	NWTPH-Dx	6-8-20	6-8-20	
Lube Oil Range Organics	**ND**	52	NWTPH-Dx	6-8-20	6-8-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-4-20	6-4-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Laboratory ID:	MB0608S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-8-20	6-8-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-8-20	6-8-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	SB0604S1										
	ORIG	DUP									
Diesel Fuel #2	**91.6**	**82.3**	NA	NA		NA		NA	11	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*104*	*94*	*50-150*			
Laboratory ID:	SB0608S3										
	ORIG	DUP									
Diesel Fuel #2	**82.8**	**81.7**	NA	NA		NA		NA	1	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*96*	*98*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chloromethane	ND	0.0079	EPA 8260D	6-4-20	6-4-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromomethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chloroethane	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Acetone	0.057	0.012	EPA 8260D	6-4-20	6-4-20	
Iodomethane	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Methylene Chloride	ND	0.0075	EPA 8260D	6-4-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Vinyl Acetate	ND	0.0074	EPA 8260D	6-4-20	6-4-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
2-Butanone	0.013	0.0076	EPA 8260D	6-4-20	6-4-20	Y
Bromochloromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chloroform	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1,1-Trichloroethane	0.0018	0.0012	EPA 8260D	6-4-20	6-4-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Benzene	0.0014	0.0012	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Toluene	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
2-Hexanone	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
m,p-Xylene	0.0025	0.0024	EPA 8260D	6-4-20	6-4-20	
o-Xylene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Styrene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromoform	ND	0.0059	EPA 8260D	6-4-20	6-4-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-4-20	6-4-20	
Bromobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.054	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.27	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.27	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.27	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.054	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*120*	*74-131*				
Toluene-d8	*82*	*78-128*				
4-Bromofluorobenzene	*74*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.010	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Acetone	0.33	0.015	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	0.0062	0.0015	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0097	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0095	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
2-Butanone	0.081	0.0098	EPA 8260D	6-3-20	6-4-20	Y
Bromochloromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	0.015	0.0076	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0030	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0015	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.056	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.28	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.28	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.28	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.056	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*93*	*78-128*				
4-Bromofluorobenzene	*79*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0079	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Acetone	0.11	0.012	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	0.0051	0.0012	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0075	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
2-Butanone	0.028	0.0077	EPA 8260D	6-3-20	6-4-20	Y
Bromochloromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0024	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0059	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.049	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.25	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.25	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.25	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.049	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*74-131*				
Toluene-d8	*89*	*78-128*				
4-Bromofluorobenzene	*73*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Dichlorodifluoromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chloromethane	ND	0.0092	EPA 8260D	6-4-20	6-4-20	
Vinyl Chloride	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromomethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chloroethane	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Trichlorofluoromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Acetone	0.14	0.014	EPA 8260D	6-4-20	6-4-20	
Iodomethane	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Carbon Disulfide	0.0046	0.0014	EPA 8260D	6-4-20	6-4-20	
Methylene Chloride	ND	0.0088	EPA 8260D	6-4-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Vinyl Acetate	ND	0.0087	EPA 8260D	6-4-20	6-4-20	
2,2-Dichloropropane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
2-Butanone	0.037	0.0089	EPA 8260D	6-4-20	6-4-20	Y
Bromochloromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chloroform	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloropropene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Benzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Trichloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Dibromomethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromodichloromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Toluene	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Tetrachloroethene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,3-Dichloropropane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
2-Hexanone	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Dibromochloromethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromoethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Chlorobenzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Ethylbenzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
m,p-Xylene	ND	0.0027	EPA 8260D	6-4-20	6-4-20	
o-Xylene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Styrene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromoform	ND	0.0069	EPA 8260D	6-4-20	6-4-20	
Isopropylbenzene	ND	0.0014	EPA 8260D	6-4-20	6-4-20	
Bromobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.058	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.29	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.29	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.29	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.058	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*85*	*74-131*				
Toluene-d8	*88*	*78-128*				
4-Bromofluorobenzene	*73*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.025	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0068	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0067	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0069	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0021	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0053	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*41*	*74-131*				Q
Toluene-d8	*103*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0074	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.029	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0070	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0055	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*37*	*74-131*				Q
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0074	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.017	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0070	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0056	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*44*	*74-131*				Q
Toluene-d8	*112*	*78-128*				
4-Bromofluorobenzene	*109*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0068	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Acetone	ND	0.010	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0065	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0064	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0066	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0051	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*34*	*74-131*				Q
Toluene-d8	*102*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.020	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0069	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0068	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0070	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0054	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*33*	*74-131*				Q
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*103*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloromethane	ND	0.0076	EPA 8260D	6-3-20	6-4-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroethane	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Acetone	0.016	0.011	EPA 8260D	6-3-20	6-4-20	
Iodomethane	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methylene Chloride	ND	0.0072	EPA 8260D	6-3-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Vinyl Acetate	ND	0.0071	EPA 8260D	6-3-20	6-4-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Butanone	ND	0.0073	EPA 8260D	6-3-20	6-4-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chloroform	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Benzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Toluene	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Hexanone	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
m,p-Xylene	ND	0.0023	EPA 8260D	6-3-20	6-4-20	
o-Xylene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Styrene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromoform	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Hexachlorobutadiene	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
Naphthalene	ND	0.0057	EPA 8260D	6-3-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-3-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*14*	*74-131*				Q
Toluene-d8	*102*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chloromethane	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromomethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chloroethane	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Acetone	ND	0.013	EPA 8260D	6-3-20	6-3-20	
Iodomethane	ND	0.0080	EPA 8260D	6-3-20	6-3-20	
Carbon Disulfide	ND	0.0019	EPA 8260D	6-3-20	6-3-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Vinyl Acetate	ND	0.0074	EPA 8260D	6-3-20	6-3-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Butanone	ND	0.0067	EPA 8260D	6-3-20	6-3-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chloroform	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Benzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dichloroethane	ND	0.0020	EPA 8260D	6-3-20	6-3-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Toluene	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-3-20	6-3-20	
o-Xylene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Styrene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromoform	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
Naphthalene	ND	0.0050	EPA 8260D	6-3-20	6-3-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-3-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*74-131*				
Toluene-d8	*100*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chloromethane	ND	0.0067	EPA 8260D	6-4-20	6-4-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromomethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chloroethane	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Acetone	ND	0.010	EPA 8260D	6-4-20	6-4-20	
Iodomethane	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Methylene Chloride	ND	0.0064	EPA 8260D	6-4-20	6-4-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Vinyl Acetate	ND	0.0063	EPA 8260D	6-4-20	6-4-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Butanone	ND	0.0065	EPA 8260D	6-4-20	6-4-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chloroform	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Benzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Toluene	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-4-20	6-4-20	
o-Xylene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Styrene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromoform	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
Naphthalene	ND	0.0050	EPA 8260D	6-4-20	6-4-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*98*	*74-131*				
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0603S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0457**	**0.0499**	0.0500	0.0500	91	100	55-126	9	17	
Benzene	**0.0427**	**0.0448**	0.0500	0.0500	85	90	65-121	5	16	
Trichloroethene	**0.0494**	**0.0513**	0.0500	0.0500	99	103	74-126	4	16	
Toluene	**0.0456**	**0.0487**	0.0500	0.0500	91	97	71-121	7	16	
Chlorobenzene	**0.0532**	**0.0537**	0.0500	0.0500	106	107	72-123	1	15	
Surrogate:										
Dibromofluoromethane					*96*	*95*	*74-131*			
Toluene-d8					*102*	*100*	*78-128*			
4-Bromofluorobenzene					*97*	*86*	*71-130*			
Laboratory ID:	SB0604S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0428**	**0.0445**	0.0500	0.0500	86	89	55-126	4	17	
Benzene	**0.0400**	**0.0420**	0.0500	0.0500	80	84	65-121	5	16	
Trichloroethene	**0.0461**	**0.0511**	0.0500	0.0500	92	102	74-126	10	16	
Toluene	**0.0435**	**0.0471**	0.0500	0.0500	87	94	71-121	8	16	
Chlorobenzene	**0.0473**	**0.0501**	0.0500	0.0500	95	100	72-123	6	15	
Surrogate:										
Dibromofluoromethane					*97*	*96*	*74-131*			
Toluene-d8					*106*	*108*	*78-128*			
4-Bromofluorobenzene					*99*	*96*	*71-130*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Naphthalene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
2-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
1-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Acenaphthylene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Acenaphthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Fluorene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Phenanthrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Anthracene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Fluoranthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Pyrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[a]anthracene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Chrysene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[b]fluoranthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo(j,k)fluoranthene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[a]pyrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Dibenz[a,h]anthracene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Benzo[g,h,i]perylene	**ND**	0.0068	EPA 8270E/SIM	6-5-20	6-6-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*75*	*46 - 113*				
Pyrene-d10	*90*	*45 - 114*				
Terphenyl-d14	*87*	*49 - 121*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0605S2					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	6-5-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*46 - 113*				
Pyrene-d10	*86*	*45 - 114*				
Terphenyl-d14	*85*	*49 - 121*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0605S2									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0765**	**0.0724**	0.0833	0.0833	92	87	60 - 116	6	16	
Acenaphthylene	**0.0880**	**0.0847**	0.0833	0.0833	106	102	60 - 125	4	15	
Acenaphthene	**0.0839**	**0.0813**	0.0833	0.0833	101	98	60 - 121	3	15	
Fluorene	**0.0932**	**0.0831**	0.0833	0.0833	112	100	65 - 126	11	15	
Phenanthrene	**0.0907**	**0.0778**	0.0833	0.0833	109	93	65 - 120	15	15	
Anthracene	**0.0949**	**0.0871**	0.0833	0.0833	114	105	67 - 125	9	15	
Fluoranthene	**0.0939**	**0.0890**	0.0833	0.0833	113	107	66 - 125	5	15	
Pyrene	**0.0927**	**0.0870**	0.0833	0.0833	111	104	62 - 125	6	15	
Benzo[a]anthracene	**0.0939**	**0.0873**	0.0833	0.0833	113	105	72 - 129	7	15	
Chrysene	**0.0939**	**0.0860**	0.0833	0.0833	113	103	66 - 123	9	15	
Benzo[b]fluoranthene	**0.0874**	**0.0825**	0.0833	0.0833	105	99	68 - 128	6	15	
Benzo(j,k)fluoranthene	**0.0985**	**0.0907**	0.0833	0.0833	118	109	63 - 128	8	16	
Benzo[a]pyrene	**0.0981**	**0.0879**	0.0833	0.0833	118	106	66 - 130	11	15	
Indeno(1,2,3-c,d)pyrene	**0.0903**	**0.0856**	0.0833	0.0833	108	103	63 - 135	5	15	
Dibenz[a,h]anthracene	**0.0842**	**0.0806**	0.0833	0.0833	101	97	65 - 130	4	15	
Benzo[g,h,i]perylene	**0.0923**	**0.0854**	0.0833	0.0833	111	103	66 - 127	8	15	
Surrogate:										
2-Fluorobiphenyl					*85*	*87*	*46 - 113*			
Pyrene-d10					*106*	*97*	*45 - 114*			
Terphenyl-d14					*101*	*92*	*49 - 121*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Aroclor 1016	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**22**	5.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**18**	5.1	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Aroclor 1016	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**8.5**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**6.6**	1.1	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**8.1**	1.0	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**7.4**	1.0	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Aroclor 1016	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1221	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1232	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1242	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1248	**ND**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1254	**12**	1.1	EPA 8082A	6-4-20	6-5-20	
Aroclor 1260	**9.2**	1.1	EPA 8082A	6-4-20	6-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*---*	*46-125*				S
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*100*	*46-125*				
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Aroclor 1016	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*99*	*46-125*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*88*	*46-125*				
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*94*	*46-125*				
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*103*	*46-125*				

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Aroclor 1016	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*89*	*46-125*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604S2					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-4-20	6-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*103*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	06-050-05										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.466**	**0.496**	0.500	0.500	ND	**93**	**99**	43-125	6	15	
Surrogate:											
DCB						*95*	*97*	*46-125*			

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Arsenic	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**58**	2.5	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**30**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**34**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**7.5**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.25	EPA 7471B	6-8-20	6-8-20	
Nickel	**31**	2.5	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**38**	2.5	EPA 6010D	6-4-20	6-4-20	
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Arsenic	**12**	11	EPA 6010D	6-4-20	6-4-20	
Barium	**74**	2.7	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.54	EPA 6010D	6-4-20	6-4-20	
Chromium	**66**	0.54	EPA 6010D	6-4-20	6-4-20	
Copper	**32**	1.1	EPA 6010D	6-4-20	6-4-20	
Lead	**8.5**	5.4	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.27	EPA 7471B	6-8-20	6-8-20	
Nickel	**36**	2.7	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	11	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.1	EPA 6010D	6-4-20	6-4-20	
Zinc	**85**	2.7	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Arsenic	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**76**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.52	EPA 6010D	6-4-20	6-4-20	
Chromium	**42**	0.52	EPA 6010D	6-4-20	6-4-20	
Copper	**32**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**10**	5.2	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**31**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**51**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Arsenic	**24**	11	EPA 6010D	6-4-20	6-4-20	
Barium	**86**	2.7	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.53	EPA 6010D	6-4-20	6-4-20	
Chromium	**200**	0.53	EPA 6010D	6-4-20	6-4-20	
Copper	**44**	1.1	EPA 6010D	6-4-20	6-4-20	
Lead	**26**	5.3	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.27	EPA 7471B	6-8-20	6-8-20	
Nickel	**53**	2.7	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	11	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.1	EPA 6010D	6-4-20	6-4-20	
Zinc	**63**	2.7	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Arsenic	**17**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**54**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**23**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**20**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**9.8**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**16**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**57**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Arsenic	**15**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**47**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.52	EPA 6010D	6-4-20	6-4-20	
Chromium	**21**	0.52	EPA 6010D	6-4-20	6-4-20	
Copper	**19**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**12**	5.2	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**15**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**64**	2.6	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Arsenic	**18**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**64**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**27**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**24**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**12**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**19**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**62**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Arsenic	**17**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**47**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**21**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**19**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**12**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**14**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**55**	2.6	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Arsenic	**19**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**48**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**0.72**	0.51	EPA 6010D	6-4-20	6-4-20	
Chromium	**150**	0.51	EPA 6010D	6-4-20	6-4-20	
Copper	**40**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**86**	5.1	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**49**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**200**	2.6	EPA 6010D	6-4-20	6-4-20	
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Arsenic	**18**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**46**	2.6	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.52	EPA 6010D	6-4-20	6-4-20	
Chromium	**36**	0.52	EPA 6010D	6-4-20	6-4-20	
Copper	**23**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**23**	5.2	EPA 6010D	6-4-20	6-4-20	
Mercury	**ND**	0.26	EPA 7471B	6-8-20	6-8-20	
Nickel	**19**	2.6	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**79**	2.6	EPA 6010D	6-4-20	6-4-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0604SH1					
Arsenic	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Barium	**ND**	2.5	EPA 6010D	6-4-20	6-4-20	
Cadmium	**ND**	0.50	EPA 6010D	6-4-20	6-4-20	
Chromium	**ND**	0.50	EPA 6010D	6-4-20	6-4-20	
Copper	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Lead	**ND**	5.0	EPA 6010D	6-4-20	6-4-20	
Nickel	**ND**	2.5	EPA 6010D	6-4-20	6-4-20	
Selenium	**ND**	10	EPA 6010D	6-4-20	6-4-20	
Silver	**ND**	1.0	EPA 6010D	6-4-20	6-4-20	
Zinc	**ND**	2.5	EPA 6010D	6-4-20	6-4-20	
Laboratory ID:	MB0608S1					
Mercury	**ND**	0.25	EPA 7471B	6-8-20	6-8-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-229-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**51.6**	**50.2**	NA	NA		NA		NA	3	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**19.2**	**18.0**	NA	NA		NA		NA	7	20	
Copper	**21.5**	**21.6**	NA	NA		NA		NA	0	20	
Lead	**5.15**	**6.45**	NA	NA		NA		NA	22	20	C
Nickel	**26.5**	**23.3**	NA	NA		NA		NA	13	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**45.2**	**42.4**	NA	NA		NA		NA	6	20	
Laboratory ID:	06-073-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-229-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**88.6**	**89.0**	100	100	ND	**89**	**89**	75-125	1	20	
Barium	**138**	**141**	100	100	51.6	**86**	**89**	75-125	2	20	
Cadmium	**41.6**	**41.8**	50.0	50.0	ND	**83**	**84**	75-125	0	20	
Chromium	**104**	**108**	100	100	19.2	**85**	**89**	75-125	4	20	
Copper	**69.5**	**66.6**	50.0	50.0	21.5	**96**	**90**	75-125	4	20	
Lead	**214**	**224**	250	250	5.15	**84**	**88**	75-125	4	20	
Nickel	**108**	**108**	100	100	26.5	**81**	**82**	75-125	0	20	
Selenium	**86.0**	**86.2**	100	100	ND	**86**	**86**	75-125	0	20	
Silver	**22.5**	**22.9**	25.0	25.0	ND	**90**	**91**	75-125	2	20	
Zinc	**126**	**123**	100	100	45.2	**81**	**78**	75-125	2	20	
Laboratory ID:	06-073-01										
Mercury	**0.551**	**0.570**	0.500	0.500	0.0597	**98**	**102**	80-120	3	20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SW-WC**					
Laboratory ID:	06-050-01					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.65**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.054**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**TS-NW-WC**					
Laboratory ID:	06-050-02					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.29**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**TS-NE-WC**					
Laboratory ID:	06-050-03					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.63**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.054**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TS-SE-WC**					
Laboratory ID:	06-050-04					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.57**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.12**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.078**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.077**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.22**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.10**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.11**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.26**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.10**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**0.25**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**0.14**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0605TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Laboratory ID:	MB0605T1					
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	
Laboratory ID:	MB0605TM2					
Arsenic	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Barium	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Cadmium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Chromium	**ND**	0.020	EPA 6010D	6-5-20	6-5-20	
Lead	**ND**	0.20	EPA 6010D	6-5-20	6-5-20	
Selenium	**ND**	0.40	EPA 6010D	6-5-20	6-5-20	
Silver	**ND**	0.040	EPA 6010D	6-5-20	6-5-20	
Laboratory ID:	MB0605T2					
Mercury	**ND**	0.0050	EPA 7470A	6-5-20	6-5-20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-050-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**0.654**	**0.652**	NA	NA		NA		NA	0	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**0.0542**	**0.0556**	NA	NA		NA		NA	3	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Laboratory ID:	06-050-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	06-050-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.99**	**3.98**	4.00	4.00	ND	**100**	**100**	75-125	0	20	
Barium	**4.18**	**4.23**	4.00	4.00	0.654	**88**	**89**	75-125	1	20	
Cadmium	**1.90**	**1.91**	2.00	2.00	ND	**95**	**95**	75-125	1	20	
Chromium	**3.73**	**3.75**	4.00	4.00	0.0542	**92**	**92**	75-125	1	20	
Lead	**8.92**	**8.93**	10.0	10.0	ND	**89**	**89**	75-125	0	20	
Selenium	**3.97**	**3.94**	4.00	4.00	ND	**99**	**98**	75-125	1	20	
Silver	**0.906**	**0.906**	1.00	1.00	ND	**91**	**91**	75-125	0	20	
Laboratory ID:	06-050-01										
Mercury	**0.0479**	**0.0478**	0.0500	0.0500	ND	**96**	**96**	75-125	0	20	

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Date of Report: June 9, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
TS-SW-WC	06-050-01	**1**	6-3-20
TS-NW-WC	06-050-02	**8**	6-3-20
TS-NE-WC	06-050-03	**3**	6-3-20
TS-SE-WC	06-050-04	**6**	6-3-20
BH-S-SE	06-050-05	**2**	6-3-20
BH-S-SW	06-050-06	**3**	6-3-20
BH-S-M-E	06-050-07	**2**	6-3-20
BH-S-M-W	06-050-08	**2**	6-3-20
BH-S-NE	06-050-09	**3**	6-3-20
BH-S-NW	06-050-10	**4**	6-3-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: OH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: Brian Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-050

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A						% Moisture
1	TS-SW-WC	6-3-20	0930	Solid	5			X	X	X					X				X		X						X
2	TS-NW-WC		0950																								
3	TS-NE-WC		1020										Cancelled DB X														
4	TS-SE-WC		1055																								
5	BH-S-SE		1135																								
6	BH-S-SW		1220																								
7	BH-S-M-E		1250																								
8	BH-S-M-W		1325		1									X													
9	BH-S-NE		1355		1																						
10	BH-S-NW		1430		1																						

	Signature	Company	Date	Time
Relinquished		OH Env.	6-3-20	1600
Received	Nathan Green	OSE	6/3/20	1600
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 19, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-184

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 17, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

Case Narrative

Samples were collected on June 17, 2020 and received by the laboratory on June 17, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

The percent recovery for surrogate Dibromofluoromethane is outside of the control limits due to sample matrix effects.

Total Metals EPA 6010D/7471B Analysis

The duplicate RPD for Barium, Chromium, Copper And Zinc are outside control limits due to sample inhomogeneity.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Cadmium, Lead and Nickel are outside control limits due to matrix effects. The Spike Blank recovery was 90% for Cadmium, 96% for Lead and 98% for Nickel

The Matrix Spike/ Matrix Spike Duplicate recoveries for Zinc are outside control limits due to matrix inhomogeneity.. The Spike Blank recovery was104%.

The Matrix Spike/Matrix Spike Duplicate RPD for Zinc is outside control limits due to matrix inhomogeneity.

The practical quantitation limit for Silver is elevated due to interferences present in the sample BH-SE-Trench-WC - 02, (06-184-02).

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-NE-Trench-WC-01**					
Laboratory ID:	06-184-01					
Dichlorodifluoromethane	ND	0.0017	EPA 8260D	6-17-20	6-17-20	
Chloromethane	ND	0.0072	EPA 8260D	6-17-20	6-17-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Bromomethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Chloroethane	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Acetone	0.023	0.011	EPA 8260D	6-17-20	6-17-20	
Iodomethane	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Methylene Chloride	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Vinyl Acetate	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
2-Butanone	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Chloroform	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Benzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Toluene	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-NE-Trench-WC-01**					
Laboratory ID:	06-184-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
2-Hexanone	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
m,p-Xylene	ND	0.0022	EPA 8260D	6-17-20	6-17-20	
o-Xylene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Styrene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Bromoform	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Bromobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
n-Propylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
2-Chlorotoluene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
4-Chlorotoluene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
tert-Butylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
sec-Butylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
n-Butylbenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
Naphthalene	ND	0.0056	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*23*	*74-131*				Q
Toluene-d8	*103*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-SE-Trench-WC-02**					
Laboratory ID:	06-184-02					
Dichlorodifluoromethane	ND	0.0019	EPA 8260D	6-17-20	6-17-20	
Chloromethane	ND	0.0081	EPA 8260D	6-17-20	6-17-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Bromomethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Chloroethane	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Acetone	0.013	0.012	EPA 8260D	6-17-20	6-17-20	
Iodomethane	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Methylene Chloride	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Vinyl Acetate	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
2-Butanone	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Bromochloromethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Chloroform	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Benzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Methyl Isobutyl Ketone	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Toluene	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-SE-Trench-WC-02**					
Laboratory ID:	06-184-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
2-Hexanone	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
m,p-Xylene	ND	0.0025	EPA 8260D	6-17-20	6-17-20	
o-Xylene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Styrene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Bromoform	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Bromobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
n-Propylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
tert-Butylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trimethylbenzene	ND	0.0016	EPA 8260D	6-17-20	6-17-20	
sec-Butylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
n-Butylbenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Hexachlorobutadiene	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
Naphthalene	ND	0.0062	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*26*	*74-131*				Q
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-SE-Trench-WC-03**					
Laboratory ID:	06-184-03					
Dichlorodifluoromethane	ND	0.0020	EPA 8260D	6-17-20	6-17-20	
Chloromethane	ND	0.0088	EPA 8260D	6-17-20	6-17-20	
Vinyl Chloride	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Bromomethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Chloroethane	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Trichlorofluoromethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Acetone	ND	0.014	EPA 8260D	6-17-20	6-17-20	
Iodomethane	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Carbon Disulfide	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Methylene Chloride	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Vinyl Acetate	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
2,2-Dichloropropane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
2-Butanone	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Bromochloromethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Chloroform	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloropropene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Benzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloroethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Trichloroethene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Dibromomethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Bromodichloromethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Methyl Isobutyl Ketone	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Toluene	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-SE-Trench-WC-03**					
Laboratory ID:	06-184-03					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Tetrachloroethene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,3-Dichloropropane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
2-Hexanone	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Dibromochloromethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromoethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Chlorobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Ethylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
m,p-Xylene	ND	0.0027	EPA 8260D	6-17-20	6-17-20	
o-Xylene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Styrene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Bromoform	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Isopropylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Bromobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
n-Propylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
2-Chlorotoluene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
4-Chlorotoluene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
tert-Butylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trimethylbenzene	ND	0.0018	EPA 8260D	6-17-20	6-17-20	
sec-Butylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
p-Isopropyltoluene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
n-Butylbenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Hexachlorobutadiene	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
Naphthalene	ND	0.0068	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260D	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*21*	*74-131*				Q
Toluene-d8	*108*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0617S1					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	6-17-20	6-17-20	
Chloromethane	ND	0.0065	EPA 8260D	6-17-20	6-17-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Bromomethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Chloroethane	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Acetone	ND	0.010	EPA 8260D	6-17-20	6-17-20	
Iodomethane	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
2-Butanone	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Chloroform	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Benzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Toluene	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0617S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-17-20	6-17-20	
o-Xylene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Styrene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Bromoform	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260D	6-17-20	6-17-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
Naphthalene	ND	0.0050	EPA 8260D	6-17-20	6-17-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*74-131*				
Toluene-d8	*106*	*78-128*				
4-Bromofluorobenzene	*103*	*71-130*				

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0617S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0442**	**0.0512**	0.0500	0.0500	88	102	55-126	15	17	
Benzene	**0.0434**	**0.0478**	0.0500	0.0500	87	96	65-121	10	16	
Trichloroethene	**0.0498**	**0.0565**	0.0500	0.0500	100	113	74-126	13	16	
Toluene	**0.0460**	**0.0515**	0.0500	0.0500	92	103	71-121	11	16	
Chlorobenzene	**0.0466**	**0.0525**	0.0500	0.0500	93	105	72-123	12	15	
Surrogate:										
Dibromofluoromethane					*100*	*100*	*74-131*			
Toluene-d8					*109*	*109*	*78-128*			
4-Bromofluorobenzene					*100*	*96*	*71-130*			

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-NE-Trench-WC-01**					
Laboratory ID:	06-184-01					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*117*	*46-125*				
Client ID:	**BH-SE-Trench-WC-02**					
Laboratory ID:	06-184-02					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*46-125*				
Client ID:	**BH-SE-Trench-WC-03**					
Laboratory ID:	06-184-03					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*111*	*46-125*				

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0617S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-17-20	6-17-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*115*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0617S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.476**	**0.479**	0.500	0.500	N/A	**95**	**96**	50-134	1	18	
Surrogate:											
DCB						*114*	*107*	*46-125*			

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-NE-Trench-WC-01**					
Laboratory ID:	06-184-01					
Arsenic	**ND**	10	EPA 6010D	6-18-20	6-18-20	
Barium	**34**	5.1	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	1.0	EPA 6010D	6-18-20	6-18-20	
Chromium	**16**	1.0	EPA 6010D	6-18-20	6-18-20	
Copper	**18**	2.0	EPA 6010D	6-18-20	6-18-20	
Lead	**13**	10	EPA 6010D	6-18-20	6-18-20	
Mercury	**ND**	0.26	EPA 7471B	6-18-20	6-18-20	
Nickel	**11**	5.1	EPA 6010D	6-18-20	6-18-20	
Selenium	**ND**	10	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	1.0	EPA 6010D	6-18-20	6-18-20	
Zinc	**40**	10	EPA 6010D	6-18-20	6-18-20	
Client ID:	**BH-SE-Trench-WC-02**					
Laboratory ID:	06-184-02					
Arsenic	**ND**	10	EPA 6010D	6-18-20	6-18-20	
Barium	**72**	5.1	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	1.0	EPA 6010D	6-18-20	6-18-20	
Chromium	**23**	1.0	EPA 6010D	6-18-20	6-18-20	
Copper	**30**	2.1	EPA 6010D	6-18-20	6-18-20	
Lead	**12**	5.1	EPA 6010D	6-18-20	6-18-20	
Mercury	**ND**	0.26	EPA 7471B	6-18-20	6-18-20	
Nickel	**9.2**	5.1	EPA 6010D	6-18-20	6-18-20	
Selenium	**ND**	10	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	2.1	EPA 6010D	6-18-20	6-18-20	U1
Zinc	**64**	10	EPA 6010D	6-18-20	6-18-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-SE-Trench-WC-03**					
Laboratory ID:	06-184-03					
Arsenic	**ND**	10	EPA 6010D	6-18-20	6-18-20	
Barium	**67**	5.1	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	1.0	EPA 6010D	6-18-20	6-18-20	
Chromium	**22**	1.0	EPA 6010D	6-18-20	6-18-20	
Copper	**28**	2.0	EPA 6010D	6-18-20	6-18-20	
Lead	**12**	10	EPA 6010D	6-18-20	6-18-20	
Mercury	**ND**	0.25	EPA 7471B	6-18-20	6-18-20	
Nickel	**20**	5.1	EPA 6010D	6-18-20	6-18-20	
Selenium	**ND**	10	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	1.0	EPA 6010D	6-18-20	6-18-20	
Zinc	**54**	10	EPA 6010D	6-18-20	6-18-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0618SH1					
Arsenic	**ND**	5.0	EPA 6010D	6-18-20	6-18-20	
Barium	**ND**	2.5	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	0.50	EPA 6010D	6-18-20	6-18-20	
Chromium	**ND**	0.50	EPA 6010D	6-18-20	6-18-20	
Copper	**ND**	1.0	EPA 6010D	6-18-20	6-18-20	
Lead	**ND**	5.0	EPA 6010D	6-18-20	6-18-20	
Nickel	**ND**	2.5	EPA 6010D	6-18-20	6-18-20	
Selenium	**ND**	5.0	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	0.50	EPA 6010D	6-18-20	6-18-20	
Zinc	**ND**	2.5	EPA 6010D	6-18-20	6-18-20	
Laboratory ID:	MB0618S1					
Mercury	**ND**	0.25	EPA 7471B	6-18-20	6-18-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-184-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**33.6**	**66.2**	NA	NA		NA		NA	65	20	L
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**15.7**	**24.5**	NA	NA		NA		NA	44	20	L
Copper	**17.7**	**33.1**	NA	NA		NA		NA	61	20	L
Lead	**12.3**	**12.2**	NA	NA		NA		NA	1	20	
Nickel	**10.3**	**18.0**	NA	NA		NA		NA	54	20	C
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**39.0**	**66.8**	NA	NA		NA		NA	53	20	L
Laboratory ID:	06-184-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	06-184-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**82.1**	**83.8**	100	100	ND	**82**	**84**	75-125	2	20	
Barium	**126**	**130**	100	100	33.6	**93**	**97**	75-125	3	20	
Cadmium	**34.2**	**36.0**	50.0	50.0	ND	**68**	**72**	75-125	5	20	V
Chromium	**90.5**	**93.6**	100	100	15.7	**75**	**78**	75-125	3	20	
Copper	**71.8**	**72.3**	50.0	50.0	17.7	**108**	**109**	75-125	1	20	
Lead	**196**	**204**	250	250	12.3	**73**	**77**	75-125	4	20	V
Nickel	**83.7**	**89.0**	100	100	10.3	**73**	**79**	75-125	6	20	V
Selenium	**81.6**	**85.0**	100	100	ND	**82**	**85**	75-125	4	20	
Silver	**19.9**	**20.0**	25.0	25.0	ND	**80**	**80**	75-125	1	20	
Zinc	**195**	**157**	100	100	39.0	**156**	**118**	75-125	22	20	V,W
Laboratory ID:	06-184-01										
Mercury	**0.498**	**0.487**	0.500	0.500	0.0100	**98**	**95**	80-120	2	20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-NE-Trench-WC-01**					
Laboratory ID:	06-184-01					
Arsenic	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Barium	**0.37**	0.20	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	0.020	EPA 6010D	6-18-20	6-18-20	
Chromium	**0.073**	0.020	EPA 6010D	6-18-20	6-18-20	
Lead	**ND**	0.20	EPA 6010D	6-18-20	6-18-20	
Mercury	**ND**	0.0050	EPA 7470A	6-18-20	6-18-20	
Selenium	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	0.040	EPA 6010D	6-18-20	6-18-20	
Client ID:	**BH-SE-Trench-WC-02**					
Laboratory ID:	06-184-02					
Arsenic	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Barium	**0.39**	0.20	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	0.020	EPA 6010D	6-18-20	6-18-20	
Chromium	**0.072**	0.020	EPA 6010D	6-18-20	6-18-20	
Lead	**ND**	0.20	EPA 6010D	6-18-20	6-18-20	
Mercury	**ND**	0.0050	EPA 7470A	6-18-20	6-18-20	
Selenium	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	0.040	EPA 6010D	6-18-20	6-18-20	
Client ID:	**BH-SE-Trench-WC-03**					
Laboratory ID:	06-184-03					
Arsenic	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Barium	**0.34**	0.20	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	0.020	EPA 6010D	6-18-20	6-18-20	
Chromium	**0.062**	0.020	EPA 6010D	6-18-20	6-18-20	
Lead	**ND**	0.20	EPA 6010D	6-18-20	6-18-20	
Mercury	**ND**	0.0050	EPA 7470A	6-18-20	6-18-20	
Selenium	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	0.040	EPA 6010D	6-18-20	6-18-20	

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0618TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Barium	**ND**	0.20	EPA 6010D	6-18-20	6-18-20	
Cadmium	**ND**	0.020	EPA 6010D	6-18-20	6-18-20	
Chromium	**ND**	0.020	EPA 6010D	6-18-20	6-18-20	
Lead	**ND**	0.20	EPA 6010D	6-18-20	6-18-20	
Selenium	**ND**	0.40	EPA 6010D	6-18-20	6-18-20	
Silver	**ND**	0.040	EPA 6010D	6-18-20	6-18-20	
Laboratory ID:	MB0618T1					
Mercury	**ND**	0.0050	EPA 7470A	6-18-20	6-18-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	06-184-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.372**	**0.372**	NA	NA		NA	NA	0	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**0.0734**	**0.0746**	NA	NA		NA	NA	2	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	06-184-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
MATRIX SPIKES										
Laboratory ID:	06-186-01									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	**3.96**	**3.89**	4.00	4.00	ND	**99**	**97**	75-125	2	20
Barium	**4.01**	**4.02**	4.00	4.00	0.372	**91**	**91**	75-125	0	20
Cadmium	**1.72**	**1.72**	2.00	2.00	ND	**86**	**86**	75-125	0	20
Chromium	**3.63**	**3.62**	4.00	4.00	0.0734	**89**	**89**	75-125	0	20
Lead	**8.63**	**8.63**	10.0	10.0	ND	**86**	**86**	75-125	0	20
Selenium	**4.36**	**4.10**	4.00	4.00	ND	**109**	**102**	75-125	6	20
Silver	**0.934**	**0.944**	1.00	1.00	ND	**93**	**94**	75-125	1	20
Laboratory ID:	06-186-01									
Mercury	**0.0499**	**0.0480**	0.0500	0.0500	ND	**100**	**96**	75-125	4	20

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Date of Report: June 19, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
BH-NE-Trench-WC-01	06-184-01	**2**	6-17-20
BH-SE-Trench-WC-02	06-184-02	**3**	6-17-20
BH-SE-Trench-WC-03	06-184-03	**2**	6-17-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: Brian Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ Best available (other)

Laboratory Number: 06-184

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A	Fish Bio Hold				% Moisture
1	BH-NE-Trench-WC-01	6-17-20	1050	Solid	5					X					X				X		X						X
2	BH-SE-Trench-WC-02	↓	1130	↓	5					↓					↓				↓		↓						X
3	BH-SE-Trench-WC-03	↓	1215	↓	5					↓					↓				↓		↓						X

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	6-17-20	1305
Received	[signature]	OSE	6/17/20	1300
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 29, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-232B

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on May 29, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232B
Project: Star Forge

Case Narrative

Samples were collected on May 29, 2020 and received by the laboratory on May 29, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232B
Project: Star Forge

SOLUBLE HEXAVALENT CHROMIUM
WATER EXTRACTION
EPA 7196A

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-N-SW**					
Laboratory ID:	05-232-05					
Hexavalent Chromium	**23**	2.1	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-N-NW**					
Laboratory ID:	05-232-06					
Hexavalent Chromium	**1.6**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-N-SE**					
Laboratory ID:	05-232-07					
Hexavalent Chromium	**5.2**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-N-NE**					
Laboratory ID:	05-232-08					
Hexavalent Chromium	**1.4**	1.0	EPA 7196A mod.	6-26-20	6-26-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: May 29, 2020
Laboratory Reference: 2005-232B
Project: Star Forge

SOLUBLE HEXAVALENT CHROMIUM
WATER EXTRACTION
EPA 7196A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0626SM1					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-05										
	ORIG	DUP									
Hexavalent Chromium	**22.4**	**18.9**	NA		NA	NA		NA	17	20	
MATRIX SPIKES											
Laboratory ID:	05-232-05										
	MS	MSD	MS	MSD		MS	MSD				
Hexavalent Chromium	**13.0**	**14.3**	5.00	5.00	22.4	-188	-162	75-125	10	20	A
SPIKE BLANK											
Laboratory ID:	SB0626SM1										
	SB		SB			SB					
Hexavalent Chromium	**4.86**		5.00		NA	97		75-125	NA	NA	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley, B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 05-232

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A		Hexchrome			% Moisture
1	CAA-NW-WC	5/29/2020	1050	Solid	5			X	X	X					X				X		X						X
2	CAA-NE-WC		1110																								
3	CAA-SW-WC		1125																								
4	CAA-SE-WC		1145											X													
5	BH-N-SW		1230																					Ⓧ			
6	BH-N-NW		1245																					Ⓧ			
7	BH-N-SE		1300											X										Ⓧ			
8	BH-N-NE		1315																					Ⓧ			

	Signature	Company	Date	Time
Relinquished		DH Environmental	5/29/2020	1430
Received		OSE	5/29/20	1430
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to Dave Hill & data@dhenviro.com
Ⓧ Added 6/26/2020. DB (Same day)

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 29, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-050B

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 3, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050B
Project: Star Forge

Case Narrative

Samples were collected on June 3, 2020 and received by the laboratory on June 3, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050B
Project: Star Forge

SOLUBLE HEXAVALENT CHROMIUM
WATER EXTRACTION
EPA 7196A

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-S-SE**					
Laboratory ID:	06-050-05					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-S-SW**					
Laboratory ID:	06-050-06					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-S-M-E**					
Laboratory ID:	06-050-07					
Hexavalent Chromium	**1.1**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-S-M-W**					
Laboratory ID:	06-050-08					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-S-NE**					
Laboratory ID:	06-050-09					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-S-NW**					
Laboratory ID:	06-050-10					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: June 3, 2020
Laboratory Reference: 2006-050B
Project: Star Forge

SOLUBLE HEXAVALENT CHROMIUM
WATER EXTRACTION
EPA 7196A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0626SM1					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-05										
	ORIG	DUP									
Hexavalent Chromium	**22.4**	**18.9**	NA		NA	NA		NA	17	20	
MATRIX SPIKES											
Laboratory ID:	05-232-05										
	MS	MSD	MS	MSD		MS	MSD				
Hexavalent Chromium	**13.0**	**14.3**	5.00	5.00	22.4	-188	-162	75-125	10	20	A
SPIKE BLANK											
Laboratory ID:	SB0626SM1										
	SB		SB			SB					
Hexavalent Chromium	**4.86**		5.00		NA	97		75-125	NA	NA	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 06-050

Company: OH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: Brian Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A		Hex chrome				% Moisture
1	TS-SW-WC	6-3-20	0930	Solid	5			X	X	X					X				X		X							X
2	TS-NW-WC		0950																									
3	TS-NE-WC		1020										Cancelled DB X															
4	TS-SE-WC		1055																									
5	BH-S-SE		1135																					X				
6	BH-S-SW		1220																					X				
7	BH-S-M-E		1250																					X				
8	BH-S-M-W		1325											X										X				
9	BH-S-NE		1355																					X				
10	BH-S-NW		1430																					X				

	Signature	Company	Date	Time
Relinquished		OH Env.	6-3-20	1600
Received	Heather Green	OSE	6/3/20	1600
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

⊗ Added 6/26/2020. DB (same day)

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 29, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-184B

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 17, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184B
Project: Star Forge

Case Narrative

Samples were collected on June 17, 2020 and received by the laboratory on June 17, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184B
Project: Star Forge

SOLUBLE HEXAVALENT CHROMIUM
WATER EXTRACTION
EPA 7196A

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**BH-NE-Trench-WC-01**					
Laboratory ID:	06-184-01					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-SE-Trench-WC-02**					
Laboratory ID:	06-184-02					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	
Client ID:	**BH-SE-Trench-WC-03**					
Laboratory ID:	06-184-03					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 29, 2020
Samples Submitted: June 17, 2020
Laboratory Reference: 2006-184B
Project: Star Forge

SOLUBLE HEXAVALENT CHROMIUM
WATER EXTRACTION
EPA 7196A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0626SM1					
Hexavalent Chromium	**ND**	1.0	EPA 7196A mod.	6-26-20	6-26-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-232-05										
	ORIG	DUP									
Hexavalent Chromium	**22.4**	**18.9**	NA		NA	NA		NA	17	20	
MATRIX SPIKES											
Laboratory ID:	05-232-05										
	MS	MSD	MS	MSD		MS	MSD				
Hexavalent Chromium	**13.0**	**14.3**	5.00	5.00	22.4	-188	-162	75-125	10	20	A
SPIKE BLANK											
Laboratory ID:	SB0626SM1										
	SB		SB			SB					
Hexavalent Chromium	**4.86**		5.00		NA	97		75-125	NA	NA	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 06-184

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: Brian Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ Best available (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (RCRA 8)	HEM (oil and grease) 1664A	Fish Bio Hold		Hex chrome		% Moisture
1	BH-NE-Trench-WC-01	6-17-20	1050	Solid	5					X					X				X		X				⊗		X
2	BH-SE-Trench-WC-02	↓	1130	↓	5					↓					↓				↓		↓				⊗		X
3	BH-SE-Trench-WC-03	↓	1215	↓	5					↓					↓				↓		↓				⊗		X

	Signature	Company	Date	Time
Relinquished		DH Environmental	6-17-20	1305
Received	Rebekah Lowell	OSE	6/17/20	1300
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
⊗ Added 6/26/2020. DB (same day)

Data Package: Standard ☐ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

DANGEROUS WASTE DESIGNATION FORM – Pit Slag

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Pit Slag

Generation Process: Slag Accumulation in Process from Forging Operations

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Estimated 1,000 lbs of slag (total) remaining in the three pits samples.
Other Descriptions (i.e. Shop, Project, Etc.): "AOD Pit", "AFD Pit", and the "HE Pit".	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☐Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here: NA

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☒TCLP Conducted
- ☐TCLP Not Conducted

Comments: All samples passed TCLP for RCRA 8 metals

Total Metals
☒mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:	59	☐ND
Barium:	100	☐ND
Cadmium:	2.3	☐ND
Chromium:	68,000	☐ND
Lead:	210	☐ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	2,100	☐ND
Nickel:	25,000	☐ND
Zinc:	710	☐ND

Comments: Highest Values are Shown

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Residual Slag	97-100
Soil/Dust/Concrete	0-3

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☐ < 0.001 %	[not a Toxic Criteria DW]	☒ < 0.01 %	[NOT APPLICABLE]	☒ < 1.0%	[NOT APPLICABLE]
☒ 0.001 ≥ 1.0 %	[WT02 – DW]	☐ 0.01 to 1.0%	[WP02 – DW]	☐ > 1.0%	[WP03 – EHW]
☐ ≥ 1.0%	[WT01 – EHW]	☐ > 1.0 %	[WP01 – EHW]		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

On 28 May 2020, DH Environmental conducted a sampling effort to thoroughly designate the remaining slag and solids in three different pits including the "AOD Pit", "AFD Pit", and the "HE Pit". These locations are shown in the field report for the attached slag designation package. Although slag from each pit was designated individually, the slag designation package represents all of the visible slag remaining in pits at the site as of the date of this letter. Representative samples were collected from each pit and initially analyzed for volatiles by EPA 8260C, PAHs by EPA 8270D, PCBs by EPA 8082, and Total RCRA 8 Metals + Copper, Nickel, and Zinc as well as TCLP for RCRA 8 metals.

The slag exhibited high total concentrations of chromium, copper, and nickel consistent with previous total metals analysis. However, despite the high total concentrations, all samples "passed" the TCLP for RCRA 8 metals. In addition, the total analysis of volatiles by EPA 8260C and PAHs by EPA 8270D did not indicate the slag should designate as characteristic for any RCRA volatiles or semi volatile compounds.

Analysis has identified low level trace constituents listed in 40 CFR 261.31 (and WAC 173-303-9904), Wastes from Non-Specific Sources. For example, acetone was detected in the "AFP Pit" at a concentration of 0.0091 mg/kg as well as benzene at 0.0059 mg/kg. However, the original processes generating any of the trace constituents in question are unknown and therefore RCRA F Series is not applicable. This designation is consistent with USEPA interpretation of unknown F-Listed trace constituents:

Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste.[1]

After it was determined that no characteristic or listed waste designations should apply to the slag, toxic equivalent concentration calculations were conducted on each sample in accordance with WAC 173-303-100(5). Samples exhibiting the highest equivalent concentration calculated from the total metals analysis from each pit were then sent to Rainier Environmental of Fife, WA for analysis by Ecology Method 80-12, Dangerous Waste Fish Bioassay. The samples submitted for fish the bioassay study represented a worst-case sample from all the samples collected. Subsequently, all of the samples

[1] Management of Remediation Waste Under RCRA, EPA530-F-98-026

submitted for Dangerous Waste Fish Bioassay testing resulted in zero mortality of the fish population exposed to the slag. The slag was then designated as non-dangerous solid waste.

Attachments:
☒Field Report
☐Sample Log
☒Laboratory Data (OnSite Environmental Lab Report 2005-008, 2005-008B and 2005-008C)
☒Dangerous Waste Toxic Equivalent Concentration Calculation
☒Biological Testing Method 80-12 (Fish Bioassay)
☐Other:

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, solid

Designation Performed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-15-2020

Designation Reviewed by: David Hill, PE, CHMM, CPEA
Title: Principal Engineer Date: 06-18-2020



1011 SW Klickitat Way
Suite 107
Seattle, Washington 98134

Field Report

File Name: FR_SF_Pit Slag_05282020

	Project: Star Forge Pit Slag Waste Characterization Sampling		Date: 5/28/2020
	Owner: Star Forge	Time of Arrival: 0900	Report Number: 1
Prepared by: Nathan Moxley	Location: 8531 East Marginal Way	Time of Departure: 1430	Page: Page 1 of 2
Purpose of Site Visit: Waste Designation Sampling	Weather: Indoors	Travel/Prep. Time: 3 hr	Project/Contract Number: Work Order 03 – Clean Closure

Upon arrival to the site I assessed personal safety hazards: ☒ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable
Safety Hazards Were Addressed by : ☒ Performing tool box safety meeting ☒ Donning PPE, and observing safety standards

Site Visit Purpose and Details:

A site visit was conducted to collect samples of metal slag-like material observed in several subsurface process pits. Samples are to support waste designation of the material.

Summary of Field Activities:

Nathan Moxley and Brian Johnson of DH Environmental arrived onsite at approximately 0900. Upon arrival we unloaded confined space equipment, tools, and sampling equipment, and set up near the work areas. A tailgate Health and Safety meeting was conducted, and notifications were made to Seattle Fire Dept. of confined space entry work. Pre-entry air monitoring was conducted and a confined space entry permit was filled out. Then ladders were set up and anchored as needed to safely access process pits.

Three pits were identified with slag-like material in them. The pits and sample locations are identified below. All samples were slag-like material unless identified otherwise.

AOD Pit

1. AOD-WC-1, collected from the sloping base of the AOD pit in the northwest corner.
2. AOD-WC-2, collected from the west wall of the AOD pit, approximately 6-ft above the base, and approximately 5-ft north of the south wall.
3. AOD-WC-3, collected from the south wall of the AOD pit, approximately 3-ft above grade, and 1-ft east of the west wall. This sample was collected beneath a white colored, fibrous, insulation-like material
4. AOD-WC-4, sample from the white, fibrous, insulation-like material over sample AOD-WC-3
5. AOD-WC-ACM-01, split sample of AOD-WC-4, submitted separately to NVL Labs for analysis of asbestos

Arc Furnace Pit

6. AFP-WC-1, collected from the south wall of the Arc Furnace Pit, approximately 2-ft east of the centerline and approximately 2-ft below grade
7. AFP-WC-2, collected from the base of the Arc Furnace Pit, just east of AFP-WC-1
8. AFP-WC-3, collected from the north wall of the Arc Furnace Pit, approximately along the centerline, and approximately 7-ft above the base of the pit

HE-18-Pit (Ingot Mold Pit)

This pit was identified in the field based on its location adjacent to, and between columns HE-17, HE-18, and HE-19. This pit is identified by Shannon and Wilson as the Ingot Mold Pit.

9. HE-18-Pit-WC-1, collected from the base of the pit in the southwest corner.
10. HE-18-Pit-WC-2, collected from multiple areas across the northern wall of the pit

All samples were submitted to OnSite Environmental following chain of custody protocol and submitted for analysis of VOCs, PCBs, total RCRA 8 metals, plus copper, nickel, and zinc, and TCLP RCRA 8 Metals. In addition, two samples were selected at random for analysis of SVOCs. Samples were collected by breaking off loose material using a rock hammer and placing it into a clean 1-gal zip-lock bag. The sample was then crushed inside the bag to the extent possible using a rock hammer, before being placed into sampling jars. Samples 'AOD-WC-2', 'AOD-WC-4', and 'HE-18-Pit-WC-1' could not be easily crushed and were submitted directly to the lab inside the zip-lock bags. The lab was asked to break down and process the samples as needed prior to analysis.

- Photos are included in a separate photo log.
- Sample locations are shown on attached site map.

☒ **THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Field Representative certifies the report was prepared with the intent to portray a true and accurate representation of the work performed or the observations made.	**FIELD REPRESENTATIVE:** Nathan Moxley, LG, LHG	**DATE:** 05/28/2020
☒**THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Reviewer certifies the report has been reviewed and is ready for release to the Client to support work product and/or deliverables without exception.	**REVIEWED BY:** **DAVID HILL, PE, CHMM, CPEA**	**DATE:** **6/1/2020**

This report presents observations and a record of field activities relating to our services only. Other work may have been performed on this project that was not under the direction or guidance of DH Environmental, Inc. Our work did not include supervision or direction of the work of others. DH Environmental, Inc. is not responsible for job or site safety of others on this project. DISCLAIMER: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by DH Environmental, Inc. and will serve as the official document of record.

ATTACHMENTS:

☒ Site Photos ☐ Sketch ☐ Chain of Custody ☐Other:
☐ Sample Log ☒ Drawing(s) ☐ Calibration Records

Photo Log
Pit Slag Waste Characterization Sampling
5/28/2020
Star Forge, Tukwila, Washington



Photo 1: Sample AOD-WC-1 inside the AOD Pit. View to the NW.



Photo 2: Sample AOD-WC-2 inside the AOD Pit. View to the W.



Photo 3: Sample AOD-WC-3 and -4, along the south wall of the AOD Pit. View to the S.



Photo 4: Sample AFP-WC-1, inside the AFP Pit. View to the S.



Photo 5: Sample AFP-WC-2, at the base of the AFP Pit. View to the S.



Photo 6: Sample AFP-WC-3, on the north wall of the AFP Pit. View to the S.



Photo 7: Sample HE-18-Pit-WC-1, at the base of the HE-18 Pit (Ingot Mold Pit). View to the SW.



Photo 8: Sample HE-18-Pit-WC-2. Sample not marked in photo, but was collected from the rust colored slag-like material located along the north wall of the HE-18 pit (Ingot Mold Pit). View to the N.

Sample ID: AFP-WC-1

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	100	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	16000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**1.60E+00**	
Copper	7440-50-8	950	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**9.50E-02**			
Lead	7439-92-1	56	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**5.60E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	6700	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**6.70E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	160	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.60E-02**		
Total (SUM)					**0.0000000**	**0.0950000**	**0.0160000**	**1.6056002**	**0.6700**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	9.50E-02	1.60E-02	1.61E+00	6.70E-01		
	0.00E+00	9.50E-03	1.60E-04	1.61E-03	6.70E-05	**0.0113326**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: AFP-WC-2

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	57	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	2.3	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**	**2.30E-04**				
Chromium	7440-47-3	28000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.80E+00**	
Copper	7440-50-8	1000	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.00E-01**			
Lead	7439-92-1	210	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**2.10E-02**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	9400	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**9.40E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	710	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**7.10E-02**		
Total (SUM)					**0.0002300**	**0.1000000**	**0.0710000**	**2.8210000**	**0.9400**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	2.30E-04	1.00E-01	7.10E-02	2.82E+00	9.40E-01		
	2.30E-04	1.00E-02	7.10E-04	2.82E-03	9.40E-05	**0.0138550**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: AFP-WC-3									
					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	41	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	43000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				4.30E+00	
Copper	7440-50-8	820	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		8.20E-02			
Lead	7439-92-1	28	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.80E-03	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	12000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.20E+00
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	89	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			8.90E-03		
Total (SUM)					0.0000000	0.0820000	0.0089000	4.3028006	1.2000

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	8.20E-02	8.90E-03	4.30E+00	1.20E+00		
	0.00E+00	8.20E-03	8.90E-05	4.30E-03	1.20E-04	0.0127118	WT02

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: AOD-WC-1

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	23	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	48000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**4.80E+00**	
Copper	7440-50-8	1500	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.50E-01**			
Lead	7439-92-1	29	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**2.90E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	18000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.80E+00**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	130	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.30E-02**		
Total (SUM)					**0.0000000**	**0.1500000**	**0.0130000**	**4.8029000**	**1.8000**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	1.50E-01	1.30E-02	4.80E+00	1.80E+00		
	0.00E+00	1.50E-02	1.30E-04	4.80E-03	1.80E-04	**0.0201129**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: AOD-WC-2

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	16	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr [3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr [3]	**X**					
Chromium	7440-47-3	32000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr [3]	**C**				**3.20E+00**	
Copper	7440-50-8	870	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr [3]	**A**		**8.70E-02**			
Lead	7439-92-1	27	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr [3]	**C**				**2.70E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg [3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr [3]	**A**					
Nickel	7440-02-0	9900	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr [3]	**D**					**9.90E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr [3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr [3]	**X**					
Zinc	7440-66-6	58	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr [3]	**B**			**5.80E-03**		
Total (SUM)					**0.0000000**	**0.0870000**	**0.0058000**	**3.2027000**	**0.9900**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	8.70E-02	5.80E-03	3.20E+00	9.90E-01		
	0.00E+00	8.70E-03	5.80E-05	3.20E-03	9.90E-05	**0.0120597**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: AOD-WC-3

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	20	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	16000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**1.60E+00**	
Copper	7440-50-8	500	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**5.00E-02**			
Lead	7439-92-1	32	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**3.20E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	7800	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**7.80E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	110	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.10E-02**		
Total (SUM)					**0.0000000**	**0.0500000**	**0.0110000**	**1.6032000**	**0.7800**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	5.00E-02	1.10E-02	1.60E+00	7.80E-01		
	0.00E+00	5.00E-03	1.10E-04	1.60E-03	7.80E-05	**0.0067912**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: AOD-WC-4

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	16	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	65000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**6.50E+00**	
Copper	7440-50-8	1200	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.20E-01**			
Lead	7439-92-1	55	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**5.50E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	11000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.10E+00**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	160	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.60E-02**		
Total (SUM)					**0.0000000**	**0.1200000**	**0.0160000**	**6.5055000**	**1.1000**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	1.20E-01	1.60E-02	6.51E+00	1.10E+00		
	0.00E+00	1.20E-02	1.60E-04	6.51E-03	1.10E-04	**0.0187755**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

Sample ID: HE-18-Pit-WC-1

					1 ng/kg = 10^-10 % (mass %)				
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	59	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**5.90E-03**		
Barium	7440-39-3	11	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr [3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr [3]	**X**					
Chromium	7440-47-3	68000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr [3]	**C**				**6.80E+00**	
Copper	7440-50-8	2100	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr [3]	**A**		**2.10E-01**			
Lead	7439-92-1	44	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr [3]	**C**				**4.40E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg [3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr [3]	**A**					
Nickel	7440-02-0	25000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr [3]	**D**					**2.50E+00**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr [3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr [3]	**X**					
Zinc	7440-66-6	170	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr [3]	**B**			**1.70E-02**		
Total (SUM)					**0.0000000**	**0.2100000**	**0.0229000**	**6.8044008**	**2.5000**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	2.10E-01	2.29E-02	6.80E+00	2.50E+00		
	0.00E+00	2.10E-02	2.29E-04	6.80E-03	2.50E-04	**0.0282834**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

Sample ID: HE-18-Pit-WC-2

					1 ng/kg = 10^-10 %	(mass %)			
				Conversions	1 ug/kg = 10^-7 %				
			Conversion Factor		1 mg/kg = 10^-4 %				
	Units Displayed as	mg/kg	0.0001		Concentration (mass %)				
Analyte	**CAS**	**Concentration***	**Toxicity[Source]**	**Toxic Category**	**X**	**A**	**B**	**C**	**D**
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**					
Barium	7440-39-3	18	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	30000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**3.00E+00**	
Copper	7440-50-8	1400	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.40E-01**			
Lead	7439-92-1	47	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**4.70E-03**	
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	17000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.70E+00**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	140	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.40E-02**		
Total (SUM)					**0.0000000**	**0.1400000**	**0.0140000**	**3.0047004**	**1.7000**

	∑X% / 1	**∑A% / 10**	**∑B% / 100**	**∑C% / 1000**	**∑D% / 10000**	**EC**	**Designation**
Enter Category Mass % Here →	0.00E+00	1.40E-01	1.40E-02	3.00E+00	1.70E+00		
	0.00E+00	1.40E-02	1.40E-04	3.00E-03	1.70E-04	**0.0173147**	**WT02**

Sources	1	RTECS: Registry of Toxic Effects of Chemical Substances
	2	HSDB: Hazardous Substances Data Bank, National Library of Medicine
	3	ECOTOX Database: United States Environmental Protection Agency

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 2, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-208

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on May 28, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

Case Narrative

Samples were collected on May 28, 2020 and received by the laboratory on May 28, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all Solid sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

Method 5035A VOA vials were not provided for samples AOD-WC-2, AOD-WC-4, and HE-18-Pit-WC-2. The samples were therefore extracted from one-gallon Ziploc bags and analyzed. In addition, the bag for sample HE-18-Pit-WC-2 was received by the lab unzipped (open). Samples AOD-WC-2 and HE-18-Pit-WC-2 had to be hammered outside of the bag to break up the samples for analysis. Due to all of these factors, some loss of volatiles may have occurred.

Some MTCA Method A cleanup levels are non-achievable for sample AOD-WC-4 due to the sample matrix.

Sample HE-18-Pit-WC-1 had one surrogate that was low after the first analysis. The second VOA vial containing a stir bar was prepped for reanalysis but broke during vortexing. Method 5035A states that for low-level VOC analysis the purge-and-trap system employed must be capable of agitating the sealed sample during the purging process. The purge-and-trap system that OnSite Environmental utilizes for the analysis of low-level VOCs has a stir motor that spins a magnetic stir bar within the sample thereby agitating the sample and providing more efficient purging. Due to the aforementioned failed analyses, a VOA vial without a stir bar was analyzed and reported for the low-level VOC analysis.

Total Metals EPA 6010D/7471B Analysis

Due to the high concentration of Chromium, Copper, Nickel in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery was 97 % for Chromium, 101% for Copper and 105% for Nickel.

The duplicate RPD for Copper is outside control limits due to sample inhomogeneity.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Barium, Cadmium, Lead, Selenium and Zinc are outside control limits due to matrix effects. The Spike Blank recovery was 97% for Barium, 93% for Cadmium, 95% for Lead, 101% for Selenium and 102% for Zinc.

The Matrix Spike/Matrix Spike Duplicate RPD for Selenium is outside control limits due to matrix effect,

The practical quantitation limit was elevated for Arsenic, Cadmium ,Selenium and Silver due to interferences present in the sample.

The samples AOD-WC-2 (05-208-02), AOD-WC-4(05-208-04), HE-18-Pit-WC-1 (05-208-07) and HW-18-Pit-WC-2 (05-208-09) were reported on a wet weight basis.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-1**					
Laboratory ID:	05-208-01					
Dichlorodifluoromethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.0066	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0066	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-1**					
Laboratory ID:	05-208-01					
1,1,2-Trichloroethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0013	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0033	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.00066	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*74-131*				
Toluene-d8	*93*	*78-128*				
4-Bromofluorobenzene	*115*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-2**					
Laboratory ID:	05-208-02					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.010	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.010	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-2**					
Laboratory ID:	05-208-02					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0051	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*74-131*				
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*124*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-3**					
Laboratory ID:	05-208-03					
Dichlorodifluoromethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.0093	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0092	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-3**					
Laboratory ID:	05-208-03					
1,1,2-Trichloroethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0019	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.00093	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*111*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-4**					
Laboratory ID:	05-208-04					
Dichlorodifluoromethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.24	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.24	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.041	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.12	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.12	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.12	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.024	EPA 8260D	5-29-20	5-29-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-4**					
Laboratory ID:	05-208-04					
1,1,2-Trichloroethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.049	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.024	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.12	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.12	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.12	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.024	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*74-131*				
Toluene-d8	*92*	*78-128*				
4-Bromofluorobenzene	*110*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-1**					
Laboratory ID:	05-208-05					
Dichlorodifluoromethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Acetone	0.0091	0.0090	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0089	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0015	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Benzene	0.0021	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-1**					
Laboratory ID:	05-208-05					
1,1,2-Trichloroethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0018	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0045	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.00090	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*112*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-2**					
Laboratory ID:	05-208-06					
Dichlorodifluoromethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.0094	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0093	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-2**					
Laboratory ID:	05-208-06					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0019	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0047	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.00094	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*86*	*74-131*				
Toluene-d8	*94*	*78-128*				
4-Bromofluorobenzene	*110*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-3**					
Laboratory ID:	05-208-07					
Dichlorodifluoromethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.0084	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0083	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0014	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Benzene	0.0059	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-3**					
Laboratory ID:	05-208-07					
1,1,2-Trichloroethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0017	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0042	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.00084	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*74-131*				
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*113*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HE-18-Pit-WC-1**					
Laboratory ID:	05-208-08					
Dichlorodifluoromethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Acetone	ND	0.0078	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0059	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0013	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0052	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HE-18-Pit-WC-1**					
Laboratory ID:	05-208-08					
1,1,2-Trichloroethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	0.0011	0.00078	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	0.0053	0.0016	EPA 8260D	5-30-20	5-30-20	
o-Xylene	0.0016	0.00078	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0039	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.00078	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*101*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HE-18-Pit-WC-2**					
Laboratory ID:	05-208-09					
Dichlorodifluoromethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Acetone	0.041	0.0092	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0091	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
2-Butanone	0.0049	0.0046	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HE-18-Pit-WC-2**					
Laboratory ID:	05-208-09					
1,1,2-Trichloroethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	0.0030	0.0018	EPA 8260D	5-29-20	5-29-20	
o-Xylene	0.00099	0.00092	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0046	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.00092	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*117*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chloromethane	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromomethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chloroethane	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Acetone	ND	0.010	EPA 8260D	5-29-20	5-29-20	
Iodomethane	ND	0.0099	EPA 8260D	5-29-20	5-29-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	5-29-20	5-29-20	
Methylene Chloride	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Butanone	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chloroform	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Benzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Toluene	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Hexanone	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-29-20	5-29-20	
o-Xylene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Styrene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromoform	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
Naphthalene	ND	0.0050	EPA 8260D	5-29-20	5-29-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*74-131*				
Toluene-d8	*92*	*78-128*				
4-Bromofluorobenzene	*113*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0530S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloromethane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroethane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Acetone	ND	0.010	EPA 8260D	5-30-20	5-30-20	
Iodomethane	ND	0.0075	EPA 8260D	5-30-20	5-30-20	
Carbon Disulfide	ND	0.0016	EPA 8260D	5-30-20	5-30-20	
Methylene Chloride	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Butanone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chloroform	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Benzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260D	5-30-20	5-30-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Toluene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0530S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Hexanone	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-30-20	5-30-20	
o-Xylene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Styrene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromoform	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
Naphthalene	ND	0.0050	EPA 8260D	5-30-20	5-30-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-30-20	5-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*96*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0529S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0528**	**0.0528**	0.0500	0.0500	106	106	55-126	0	17	
Benzene	**0.0499**	**0.0496**	0.0500	0.0500	100	99	65-121	1	16	
Trichloroethene	**0.0566**	**0.0579**	0.0500	0.0500	113	116	74-126	2	16	
Toluene	**0.0499**	**0.0508**	0.0500	0.0500	100	102	71-121	2	16	
Chlorobenzene	**0.0495**	**0.0508**	0.0500	0.0500	99	102	72-123	3	15	
Surrogate:										
Dibromofluoromethane					*91*	*86*	*74-131*			
Toluene-d8					*97*	*96*	*78-128*			
4-Bromofluorobenzene					*104*	*105*	*71-130*			
Laboratory ID:	SB0530S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0523**	**0.0483**	0.0500	0.0500	105	97	55-126	8	17	
Benzene	**0.0478**	**0.0444**	0.0500	0.0500	96	89	65-121	7	16	
Trichloroethene	**0.0515**	**0.0500**	0.0500	0.0500	103	100	74-126	3	16	
Toluene	**0.0504**	**0.0483**	0.0500	0.0500	101	97	71-121	4	16	
Chlorobenzene	**0.0539**	**0.0523**	0.0500	0.0500	108	105	72-123	3	15	
Surrogate:										
Dibromofluoromethane					*97*	*96*	*74-131*			
Toluene-d8					*98*	*98*	*78-128*			
4-Bromofluorobenzene					*100*	*99*	*71-130*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-1**					
Laboratory ID:	05-208-01					
Naphthalene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
2-Methylnaphthalene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
1-Methylnaphthalene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthylene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Fluorene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Phenanthrene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Anthracene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Fluoranthene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Pyrene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]anthracene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Chrysene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[b]fluoranthene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo(j,k)fluoranthene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]pyrene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Dibenz[a,h]anthracene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[g,h,i]perylene	**ND**	0.0070	EPA 8270E/SIM	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*46 - 113*				
Pyrene-d10	*88*	*45 - 114*				
Terphenyl-d14	*91*	*49 - 121*				

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-1**					
Laboratory ID:	05-208-05					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*87*	*46 - 113*				
Pyrene-d10	*100*	*45 - 114*				
Terphenyl-d14	*94*	*49 - 121*				

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*46 - 113*				
Pyrene-d10	*90*	*45 - 114*				
Terphenyl-d14	*90*	*49 - 121*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0529S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0621**	**0.0637**	0.0833	0.0833	75	76	60 - 116	3	16	
Acenaphthylene	**0.0691**	**0.0666**	0.0833	0.0833	83	80	60 - 125	4	15	
Acenaphthene	**0.0696**	**0.0674**	0.0833	0.0833	84	81	60 - 121	3	15	
Fluorene	**0.0755**	**0.0757**	0.0833	0.0833	91	91	65 - 126	0	15	
Phenanthrene	**0.0749**	**0.0747**	0.0833	0.0833	90	90	65 - 120	0	15	
Anthracene	**0.0783**	**0.0766**	0.0833	0.0833	94	92	67 - 125	2	15	
Fluoranthene	**0.0788**	**0.0806**	0.0833	0.0833	95	97	66 - 125	2	15	
Pyrene	**0.0810**	**0.0792**	0.0833	0.0833	97	95	62 - 125	2	15	
Benzo[a]anthracene	**0.0923**	**0.0879**	0.0833	0.0833	111	106	72 - 129	5	15	
Chrysene	**0.0756**	**0.0776**	0.0833	0.0833	91	93	66 - 123	3	15	
Benzo[b]fluoranthene	**0.0848**	**0.0772**	0.0833	0.0833	102	93	68 - 128	9	15	
Benzo(j,k)fluoranthene	**0.0794**	**0.0839**	0.0833	0.0833	95	101	63 - 128	6	16	
Benzo[a]pyrene	**0.0830**	**0.0785**	0.0833	0.0833	100	94	66 - 130	6	15	
Indeno(1,2,3-c,d)pyrene	**0.0799**	**0.0799**	0.0833	0.0833	96	96	63 - 135	0	15	
Dibenz[a,h]anthracene	**0.0804**	**0.0791**	0.0833	0.0833	97	95	65 - 130	2	15	
Benzo[g,h,i]perylene	**0.0817**	**0.0807**	0.0833	0.0833	98	97	66 - 127	1	15	
Surrogate:										
2-Fluorobiphenyl					*81*	*75*	*46 - 113*			
Pyrene-d10					*93*	*90*	*45 - 114*			
Terphenyl-d14					*88*	*89*	*49 - 121*			

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-1**					
Laboratory ID:	05-208-01					
Aroclor 1016	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.053	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*46-125*				
Client ID:	**AOD-WC-2**					
Laboratory ID:	05-208-02					
Aroclor 1016	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.063	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*105*	*46-125*				
Client ID:	**AOD-WC-3**					
Laboratory ID:	05-208-03					
Aroclor 1016	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.16	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*100*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-4**					
Laboratory ID:	05-208-04					
Aroclor 1016	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.19	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*96*	*46-125*				
Client ID:	**AFP-WC-1**					
Laboratory ID:	05-208-05					
Aroclor 1016	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.088	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*92*	*46-125*				
Client ID:	**AFP-WC-2**					
Laboratory ID:	05-208-06					
Aroclor 1016	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.10	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-3**					
Laboratory ID:	05-208-07					
Aroclor 1016	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.097	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*94*	*46-125*				
Client ID:	**HE-18-Pit-WC-1**					
Laboratory ID:	05-208-08					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*101*	*46-125*				
Client ID:	**HE-18-Pit-WC-2**					
Laboratory ID:	05-208-09					
Aroclor 1016	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.061	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*107*	*46-125*				

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-29-20	5-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0529S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.455**	**0.469**	0.500	0.500	N/A	**91**	**94**	50-134	3	18	
Surrogate:											
DCB						*90*	*89*	*46-125*			

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-1**					
Laboratory ID:	05-208-01					
Arsenic	**ND**	53	EPA 6010D	5-29-20	6-1-20	U1
Barium	**23**	5.3	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.1	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**48000**	260	EPA 6010D	5-29-20	5-29-20	
Copper	**1500**	11	EPA 6010D	5-29-20	6-1-20	
Lead	**29**	11	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.26	EPA 7471B	6-1-20	6-1-20	
Nickel	**18000**	260	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	32	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.3	EPA 6010D	5-29-20	6-1-20	U1
Zinc	**130**	5.3	EPA 6010D	5-29-20	5-29-20	
Client ID:	**AOD-WC-2**					
Laboratory ID:	05-208-02					
Arsenic	**ND**	50	EPA 6010D	5-29-20	5-29-20	U1
Barium	**16**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**32000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**870**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**27**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**9900**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	30	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	10	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**58**	5.0	EPA 6010D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-3**					
Laboratory ID:	05-208-03					
Arsenic	**ND**	50	EPA 6010D	5-29-20	5-29-20	U1
Barium	**20**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**16000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**500**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**32**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**7800**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	30	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**110**	5.0	EPA 6010D	5-29-20	5-29-20	
Client ID:	**AOD-WC-4**					
Laboratory ID:	05-208-04					
Arsenic	**ND**	50	EPA 6010D	5-29-20	5-29-20	U1
Barium	**16**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**65000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**1200**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**55**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**11000**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	30	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**160**	5.0	EPA 6010D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-1**					
Laboratory ID:	05-208-05					
Arsenic	**ND**	50	EPA 6010D	5-29-20	5-29-20	U1
Barium	**100**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**16000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**950**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**56**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**6700**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	35	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**160**	5.0	EPA 6010D	5-29-20	5-29-20	
Client ID:	**AFP-WC-2**					
Laboratory ID:	05-208-06					
Arsenic	**ND**	58	EPA 6010D	5-29-20	5-29-20	U1
Barium	**57**	5.8	EPA 6010D	5-29-20	5-29-20	
Cadmium	**2.3**	1.2	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**28000**	290	EPA 6010D	5-29-20	5-29-20	
Copper	**1000**	12	EPA 6010D	5-29-20	5-29-20	
Lead	**210**	12	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.29	EPA 7471B	6-1-20	6-1-20	
Nickel	**9400**	1400	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	35	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.8	EPA 6010D	5-29-20	6-1-20	U1
Zinc	**710**	5.8	EPA 6010D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-3**					
Laboratory ID:	05-208-07					
Arsenic	**ND**	50	EPA 6010D	5-29-20	5-29-20	U1
Barium	**41**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**43000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**820**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**28**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**12000**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	35	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**89**	5.0	EPA 6010D	5-29-20	5-29-20	
Client ID:	**HE-18-Pit-WC-1**					
Laboratory ID:	05-208-08					
Arsenic	**59**	50	EPA 6010D	5-29-20	6-1-20	U1
Barium	**11**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**68000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**2100**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**44**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**25000**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	50	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**170**	5.0	EPA 6010D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HE-18-Pit-WC-2**					
Laboratory ID:	05-208-09					
Arsenic	**ND**	50	EPA 6010D	5-29-20	6-1-20	U1
Barium	**18**	5.0	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	1.0	EPA 6010D	5-29-20	6-1-20	U1
Chromium	**30000**	250	EPA 6010D	5-29-20	5-29-20	
Copper	**1400**	10	EPA 6010D	5-29-20	5-29-20	
Lead	**47**	10	EPA 6010D	5-29-20	6-1-20	
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Nickel	**17000**	1300	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	75	EPA 6010D	5-29-20	6-1-20	U1
Silver	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	U1
Zinc	**140**	5.0	EPA 6010D	5-29-20	5-29-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0529SH1					
Arsenic	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	
Barium	**ND**	2.5	EPA 6010D	5-29-20	5-29-20	
Cadmium	**ND**	0.50	EPA 6010D	5-29-20	5-29-20	
Chromium	**ND**	0.50	EPA 6010D	5-29-20	5-29-20	
Copper	**ND**	1.0	EPA 6010D	5-29-20	5-29-20	
Lead	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	
Nickel	**ND**	2.5	EPA 6010D	5-29-20	5-29-20	
Selenium	**ND**	5.0	EPA 6010D	5-29-20	5-29-20	
Silver	**ND**	0.50	EPA 6010D	5-29-20	5-29-20	
Zinc	**ND**	2.5	EPA 6010D	5-29-20	5-29-20	
Laboratory ID:	MB0601S1					
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-208-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**22.1**	**25.6**	NA	NA		NA		NA	15	20	
Cadmium	**ND**	**1.37**	NA	NA		NA		NA	NA	20	
Chromium	**45800**	**49300**	NA	NA		NA		NA	8	20	
Copper	**1400**	**1890**	NA	NA		NA		NA	30	20	L
Lead	**27.3**	**32.5**	NA	NA		NA		NA	17	20	
Nickel	**17500**	**20000**	NA	NA		NA		NA	13	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**122**	**125**	NA	NA		NA		NA	2	20	
Laboratory ID:	05-208-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-208-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**93.0**	**78.0**	100	100	ND	**93**	**78**	75-125	18	20	
Barium	**95.3**	**87.1**	100	100	22.1	**73**	**65**	75-125	9	20	V
Cadmium	**31.4**	**31.0**	50.0	50.0	ND	**63**	**62**	75-125	1	20	V
Chromium	**43800**	**45300**	100	100	45800	**-2000**	**-500**	75-125	3	20	A
Copper	**1480**	**1430**	50.0	50.0	1400	**152**	**54**	75-125	3	20	A
Lead	**176**	**175**	250	250	27.3	**60**	**59**	75-125	1	20	V
Nickel	**17600**	**14400**	100	100	17500	**130**	**-3130**	75-125	20	20	A
Selenium	**30.0**	**42.8**	100	100	ND	**30**	**43**	75-125	35	20	V,W
Silver	**20.8**	**18.9**	25.0	25.0	ND	**83**	**75**	75-125	10	20	
Zinc	**171**	**170**	100	100	122	**49**	**48**	75-125	1	20	V
Laboratory ID:	05-208-01										
Mercury	**0.454**	**0.498**	0.500	0.500	0.00500	**90**	**99**	80-120	9	20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-1**					
Laboratory ID:	05-208-01					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.68**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**AOD-WC-2**					
Laboratory ID:	05-208-02					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.022**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**AOD-WC-3**					
Laboratory ID:	05-208-03					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AOD-WC-4**					
Laboratory ID:	05-208-04					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**AFP-WC-1**					
Laboratory ID:	05-208-05					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.21**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**AFP-WC-2**					
Laboratory ID:	05-208-06					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.26**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**0.12**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AFP-WC-3**					
Laboratory ID:	05-208-07					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**HE-18-Pit-WC-1**					
Laboratory ID:	05-208-08					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Client ID:	**HE-18-Pit-WC-2**					
Laboratory ID:	05-208-09					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T11					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Laboratory ID:	MB0602TM2					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T2					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-208-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**0.684**	**0.654**	NA	NA		NA	NA	4	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-208-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-138-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.376**	**0.380**	NA	NA		NA	NA	1	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-138-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-208-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.79**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	0	20	
Barium	**3.69**	**3.67**	4.00	4.00	ND	**92**	**92**	75-125	1	20	
Cadmium	**1.96**	**1.95**	2.00	2.00	ND	**98**	**98**	75-125	1	20	
Chromium	**4.21**	**4.21**	4.00	4.00	0.684	**88**	**88**	75-125	0	20	
Lead	**8.54**	**8.50**	10.0	10.0	ND	**85**	**85**	75-125	0	20	
Selenium	**3.88**	**3.91**	4.00	4.00	ND	**97**	**98**	75-125	1	20	
Silver	**0.904**	**0.908**	1.00	1.00	ND	**90**	**91**	75-125	0	20	
Laboratory ID:	05-208-01										
Mercury	**0.0490**	**0.0497**	0.0500	0.0500	ND	**98**	**99**	75-125	1	20	
Laboratory ID:	05-138-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.91**	**3.91**	4.00	4.00	ND	**98**	**98**	75-125	0	20	
Barium	**3.95**	**3.96**	4.00	4.00	0.376	**89**	**90**	75-125	0	20	
Cadmium	**1.94**	**1.97**	2.00	2.00	ND	**97**	**98**	75-125	1	20	
Chromium	**3.36**	**3.39**	4.00	4.00	ND	**84**	**85**	75-125	1	20	
Lead	**8.35**	**8.35**	10.0	10.0	ND	**84**	**84**	75-125	0	20	
Selenium	**3.91**	**3.83**	4.00	4.00	ND	**98**	**96**	75-125	2	20	
Silver	**0.894**	**0.896**	1.00	1.00	ND	**89**	**90**	75-125	0	20	
Laboratory ID:	05-138-01										
Mercury	**0.0472**	**0.0483**	0.0500	0.0500	ND	**94**	**97**	75-125	2	20	

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Date of Report: June 2, 2020
Samples Submitted: May 28, 2020
Laboratory Reference: 2005-208
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
AOD-WC-1	05-208-01	**5**	5-29-20
AOD-WC-3	05-208-03	**1**	5-29-20
AFP-WC-1	05-208-05	**0**	5-29-20
AFP-WC-2	05-208-06	**13**	5-29-20
AFP-WC-3	05-208-07	**0**	5-29-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 05-208

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A						% Moisture
1	AOD-WC-1	5/28/2020	1055	Soil	5					X				X	X				X		X							X
2	AOD-WC-2	↓	1120	↓	1					↓					↓				↓		↓							
3	AOD-WC-3		1150		5																							X
4	AOD-WC-4		1200		1																							
5	AFP-WC-1		1210		5									X														X
6	AFP-WC-2		1220		5																							↓
7	AFP-WC-3		1230		5																							
8	HE-18-Pit-WC-1		1255		4																							
9	HE-18-Pit-WC-2	↓	1305	↓	1					↓					↓				↓		↓							

	Signature	Company	Date	Time
Relinquished		DH Env.	5-28-20	1510
Received		OSE	5/28/20	1510
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 15, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-208B

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on May 28, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

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Rainier ENVIRONMENTAL

Dangerous Waste Characterization

Sample ID's: AOD-WC-1; AFP-WC-2; HE-18-Pit-WC-1

Report date: June 15, 2020

Submitted to:

Onsite Environmental
14648 NE 95th Street
Redmond, WA 98052

Rainier Environmental
5013 Pacific Hwy East
Suite 20
Tacoma, WA 98424

1.0 INTRODUCTION

A dangerous waste characterization using the test organism *Oncorhynchus mykiss* (rainbow trout) was conducted on three samples submitted by Onsite Environmental to Rainier Environmental. Testing was conducted following the Washington State Department of Ecology Publication 80-12.

2.0 METHODS

The samples, identified as AOD-WC-1, AFP-WC-2 and HE-18-Pit-WC-1 were received in the laboratory on June 8, 2020. Upon arrival at the laboratory the samples were inspected and contents verified against information provided on the chain-of-custody form. The samples were stored at 4°C in the dark until use. The test procedure is outlined in Table 1.

Table 1. Summary of Dangerous Waste Characterization Test Conditions

Parameter	Standard Fish Toxicity Test
Test number's	2006-009; 2006-010; 2006-011
Sample ID's	AOD-WC-1; AFP-WC-2; HE-18-Pit-WC-1
Test initiation date; time	6/10/2020; 0855h
Test termination date; time	6/14/2020; 0910h
Endpoint	Mortality at 96-hours
Test chamber	7.5 L plastic tank
Test temperature	12 ± 1°C
Dilution water	Moderately hard synthetic water
Test solution volume	6 L
Test concentrations (mg/L)	100, 10, 0
Number of organisms/chamber	10
Number of replicates	3
Test organism	*Oncorhynchus mykiss* (rainbow trout)
Feeding	No feeding during test
Photoperiod	16 hours light/ 8 hours dark
Extraction	Rotary agitation (30 +/- 2 rpm) for 18 hours
Reference Toxicant	Copper sulfate
Deviations	None

The test organisms used in the test are outlined in Table 2. The samples were tested using fish received on April 22, 2022.

Table 2. Test organisms (*Oncorhynchus mykiss*)

Test organism age	52 days post swim-up (hatch date 4/1/2020)
Mean weight	0.36 g
Mean length	35 mm
Ratio of longest to shortest	1.2
Loading	0.59 g/L
Test organism source	Trout Lodge; Sumner, WA

3.0 RESULTS

A summary of results for the dangerous waste characterization conducted on samples AOD-WC-1, AFP-WC-2 and HE-18-Pit-WC-1 are contained in Table 3. There was no mortality in the control or in any of the samples. Based on these results, the samples do not designate as either dangerous or extremely hazardous waste. Copies of the laboratory bench sheets, statistical summaries of reference toxicant tests, and chain-of-custody form are provided in Appendices A through C.

Table 3. Summary of Results

Sample ID	Concentration (mg/L)	Survival (# fish, N=30)	Percent Mortality	Dangerous Waste Designation
Control	0	30	0	NA
AOD-WC-1	10	30	0	None
	100	30	0	
AFP-WC-2	10	30	0	None
	100	30	0	
HE-18-Pit-WC-1	10	30	0	None
	100	30	0	

4.0 QUALITY ASSURANCE

The most recently completed reference toxicant test was initiated June 4, 2020. The LC_{50} of 138 g/L copper fell within the acceptable range of mean ± two standard deviations of historical test results indicating that the test organisms were of an appropriate degree of sensitivity. The coefficient of variation (CV) for the last 20 tests was 29.8 percent, which is considered excellent by the Biomonitoring Science Advisory Board.

5.0 REFERENCES

WDOE. 2016. Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. Washington State Department of Ecology. Water Quality Program. Publication number: WQ-R-95-80, Revised June 2016.

WDOE. 2009. Biological Testing Methods 80-12 for the Designation of Dangerous Waste. Washington State Department of Ecology. Hazardous Waste and Toxics Reduction Program. Publication number: 80-12, Revised June 2009.

Appendix A
Oncorhynchus mykiss Dangerous Waste Toxicity Test
Raw Bench Sheets

Dangerous Waste Toxicity Test

Client: ONSITE ENVIRONMENTAL

Sample ID: AOD-WC-1; AFP-WC-2; HE-18-PIT-WC-1

Test #: 2006-009; 2006-010; 2006-011

Log In #: T20-169; T20-170; T20-171

Start Date & Time: 6/10/2020 0855

End Date & Time: 6/14/2020 0910

Test Organism: *Oncorhynchus mykiss*

Test Protocol: **Washington State Department of Ecology Publ. 80-12**

Rep	Conc.	Cont #	Number of Live Organisms					Dissolved Oxygen (mg/L)					pH (units)					Conductivity (umhos/cm)					Temperature (°C)					Percent Survival
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
1	CON	12	10	10	10	10	10	8.4	8.5	8.1	7.8	7.5	7.85	7.62	7.45	7.27	7.18	297				307	12.1	12.0	12.3	12.4	11.8	
2		8	10	10	10	10	10	9.1	8.7	8.4	8.2	8.1	7.86	7.61	7.42	7.25	7.15	281				315						
3		21	10	10	10	10	10	9.1	8.3	8.0	7.9	7.7	7.86	7.64	7.47	7.22	7.14	291				294						
1	10PPM	24	10	10	10	10	10	9.0	8.5	8.2	8.0	7.8	7.84	7.58	7.47	7.28	7.11	293				294	12.1	12.0	12.1	12.5	12.1	
2	T20-169	13	10	10	10	10	10	9.2	8.6	8.3	8.2	8.1	7.82	7.62	7.46	7.29	7.13	290				297						
3	AOD	2	10	10	10	10	10	9.0	8.3	8.1	7.8	7.5	7.85	7.57	7.47	7.24	7.15	291				295						
1	100PPM	18	10	10	10	10	10	8.8	8.3	8.0	7.7	7.5	7.86	7.59	7.48	7.25	7.16	291				293	12.2	11.9	12.1	12.3	12.0	
2	T20-169	9	10	10	10	10	10	8.9	8.4	8.3	8.1	8.0	7.82	7.64	7.47	7.25	7.12	291				294						
3	AOD	22	10	10	10	10	10	8.9	8.5	8.2	8.0	7.7	7.81	7.62	7.46	7.28	7.14	291				300						
1	10PPM	10	10	10	10	10	10	9.0	8.5	8.1	7.8	7.4	7.80	7.61	7.43	7.22	7.13	290				294	12.2	11.8	12.0	12.3	11.9	
2	T20-170	3	10	10	10	10	10	9.1	8.6	8.4	8.1	8.0	7.81	7.57	7.47	7.18	7.11	295				292						
3	AFP	13	10	10	10	10	10	9.1	8.4	8.1	7.7	7.6	7.79	7.58	7.48	7.23	7.14	291				297						
1	100PPM	19	10	10	10	10	10	9.0	8.4	8.0	7.8	7.6	7.82	7.63	7.47	7.24	7.14	291				298	12.2	11.8	12.1	12.4	11.9	
2	T20-170	14	10	10	10	10	10	9.0	8.2	8.0	7.6	7.5	7.84	7.59	7.48	7.25	7.13	288				294						
3	AFP	4	10	10	10	10	10	8.8	8.5	8.3	8.1	8.0	7.82	7.63	7.49	7.25	7.12	287				292						
1	10PPM	25	10	10	10	10	10	8.8	8.6	8.5	8.1	7.7	7.81	7.58	7.46	7.27	7.11	287				293	12.1	12.1	12.0	12.2	11.9	
2	T20-171	6	10	10	10	10	10	9.1	8.5	8.2	8.0	7.8	7.82	7.64	7.48	7.26	7.14	288				294						
3	HE	20	10	10	10	10	10	9.1	8.4	8.2	7.9	7.8	7.84	7.65	7.45	7.25	7.13	287				296						
1	100PPM	5	10	10	10	10	10	9.2	8.7	8.3	8.1	7.9	7.81	7.59	7.46	7.24	7.11	287				296	12.2	12.0	12.1	12.4	11.8	
2	T20-171	27	10	10	10	10	10	8.9	8.5	8.1	7.9	7.5	7.82	7.61	7.48	7.24	7.14	291				294						
3	HE	26	10	10	10	10	10	8.8	8.4	8.2	8.0	7.9	7.82	7.63	7.49	7.25	7.16	291				293						
Technician Initials			QK	QK	QK	QK	QK	QK	QK	QK	QK	QK																

Sample	Alk. (init.)	Hard. (init.)	Alk. (fin.)	Hard. (fin.)	Chlorine
	(mg/L as CaCO3)				(mg/L Cl2)
Control	64	84	64	84	<0.03
AOD	64	84	64	84	
AFP	64	84	64	84	
HE	64	84	64	84	

Animal Source: TROUT LODGE

Date Received: 4/23/20

Test Volume: 6.0L

Date of Hatch: 4/1/20

Date of Swim up: 4/18/20

Weights (g): .36 .30 .33 .31 .37 .38 .35 .34 .36 .36

Lengths(mm): 35 31 32 34 35 37 35 35 34 35

Length max/min: 39/32 1.2

Loading: 0.59 g/L

μ = .36 Rainier Environmental

μ = 35 Washington Laboratory

5013 Pacific HWY E Suite 20

Tacoma, WA 98424

Dilution Water Source: MHSW 045

QA Check QK

Appendix B

Reference Toxicant Test

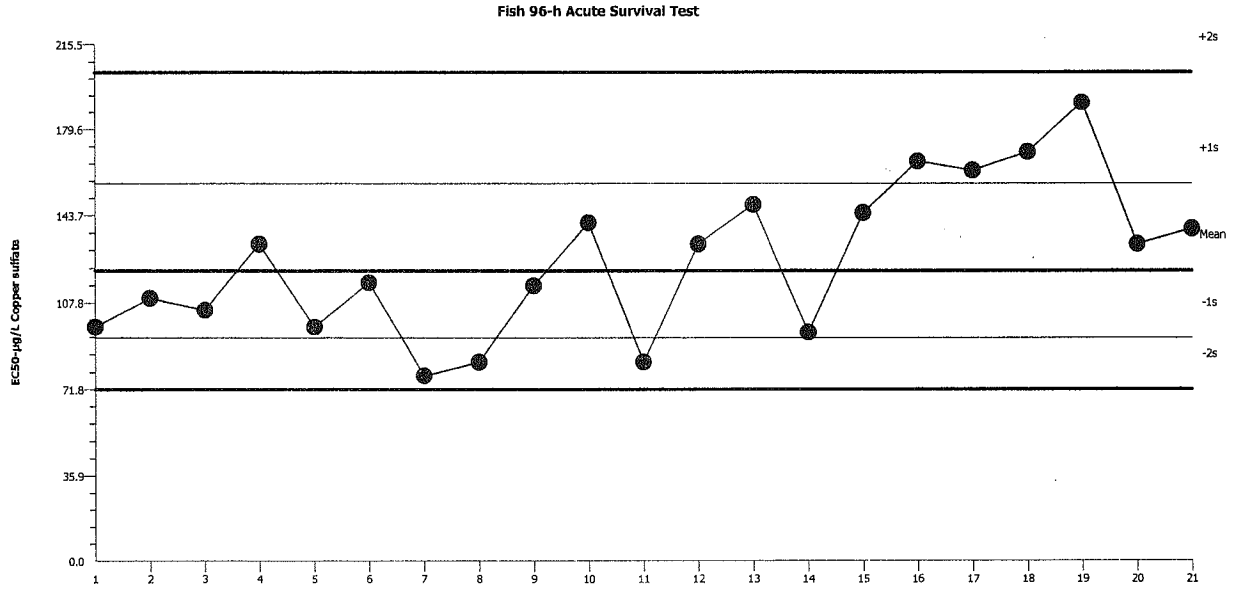
Control Chart and Statistical Summary

CETIS QC Plot

Report Date: 08 Jun-20 12:43 (1 of 1)

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Test Type:	Survival (96h)	**Organism:**	Oncorhynchus mykiss (Rainbow Tro	**Material:**	Copper sulfate
Protocol:	Not Applicable	**Endpoint:**	96h Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	121	**Count:**	20	**-1s Warning Limit:**	93.24	**-2s Action Limit:**	71.84
Sigma:	NA	**CV:**	29.80%	**+1s Warning Limit:**	157.1	**+2s Action Limit:**	203.9

Quality Control Data

Point	Year	Month	Day	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Aug	30	97.72	-23.31	-0.8203			01-6631-0399	00-2872-0274
2		Oct	5	109.7	-11.34	-0.3773			09-8718-1650	14-5303-2875
3		Nov	6	104.7	-16.3	-0.5545			20-5282-8357	01-3690-0719
4		Dec	5	132	10.93	0.3314			01-4499-1094	07-5652-1457
5	2019	Jan	7	97.72	-23.31	-0.8203			03-9395-5944	09-6087-0434
6		Feb	9	116.1	-4.882	-0.1579			13-6349-4914	05-5573-8325
7		Mar	12	77.56	-43.47	-1.706	(-)		03-9582-1391	08-0363-8342
8		Apr	19	83.12	-37.9	-1.44	(-)		16-0727-4914	09-8538-6220
9		May	21	114.9	-6.156	-0.2002			13-0213-5670	12-8044-7071
10		Jun	21	140.6	19.61	0.5759			18-7198-9789	02-0902-1290
11		Jul	23	83.12	-37.9	-1.44	(-)		09-5504-5129	09-5466-8341
12		Aug	23	132	10.93	0.3314			06-2129-4986	03-1480-8200
13		Sep	20	148.1	27.08	0.7744			14-9775-6582	02-8526-9159
14		Oct	22	95.48	-25.54	-0.9089			08-2604-9852	04-5996-4554
15		Nov	25	144.7	23.7	0.6858			19-0900-7567	17-7816-6246
16		Dec	26	166.2	45.22	1.217	(+)		18-0718-4325	01-1522-2292
17	2020	Jan	27	162.5	41.43	1.129	(+)		15-7428-0290	09-7189-2054
18		Feb	28	170.1	49.11	1.306	(+)		09-4267-7927	12-7910-1452
19		Apr	1	191	69.94	1.749	(+)		13-6543-5000	21-3363-8866
20		May	1	132	10.93	0.3314			05-3085-5611	09-0915-7454
21		Jun	4	138.2	17.17	0.5086			02-5099-4531	13-4027-8146

CETIS Summary Report

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Batch ID:	00-5413-6128	**Test Type:**	Survival (96h)	**Analyst:**	Eric Tollefson
Start Date:	04 Jun-20 11:15	**Protocol:**	Not Applicable	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	08 Jun-20 12:00	**Species:**	Oncorhynchus mykiss	**Brine:**	
Duration:	4d 1h	**Source:**	Trout Lodge Fish Farm	**Age:**	46d

Sample ID:	19-4490-5545	**Code:**	RA060420OM	**Client:**	Internal Lab
Sample Date:	04 Jun-20	**Material:**	Copper sulfate	**Project:**	
Receive Date:	04 Jun-20	**Source:**	Reference Toxicant		
Sample Age:	11h	**Station:**	In House		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
21-4329-7482	96h Survival Rate	50	100	70.71	15.5%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
13-4027-8146	96h Survival Rate	LC50	138.2	119.3	160.1		Spearman-Kärber

96h Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	3	1	1	1	1	1	0	0	0.0%	0.0%
25		3	1	1	1	1	1	0	0	0.0%	0.0%
50		3	1	1	1	1	1	0	0	0.0%	0.0%
100		3	0.7667	0.7451	0.7882	0.7	0.8	0.03333	0.05774	7.53%	23.33%
200		3	0.2	0.1253	0.2747	0	0.4	0.1155	0.2	100.0%	80.0%
400		3	0	0	0	0	0	0	0		100.0%

96h Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	1	1	1
25		1	1	1
50		1	1	1
100		0.7	0.8	0.8
200		0.4	0.2	0
400		0	0	0

96h Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	10/10	10/10	10/10
25		10/10	10/10	10/10
50		10/10	10/10	10/10
100		7/10	8/10	8/10
200		4/10	2/10	0/10
400		0/10	0/10	0/10

Appendix C
Chain-of-Custody Form

OnSite Environmental Inc.

RUSH

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory Reference #: 05-208

Laboratory: Rainier Environmental

Turnaround Request

Project Manager: David Baumeister

Attention: Eric Tollefson

1 Day 2 Day 3 Day

email: dbaumeister@onsite-env.com

Address: 5013 Pacific Highway E, Suite 20, Fife, WA 98424

Standard

Project Number:

Phone Number: (253) 922-8898

Other: 1 week

Project Name: Star Forge

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	AOD-WC-1	5/23/20	10:55	Solid	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-169
	AFP-WC-2	5/23/20	12:20	Solid	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-170
	HE-18-Pit-WC-1	5/23/20	12:55	Solid	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-171

Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:				
Received by: Eric Tollefson	RAINIER ENVIRONMENTAL	6/8/20	1355	
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 05-208

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCLA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A	Fish Biology				% Moisture
1	AOD-WC-1	5/28/2020	1055	Soil	5					X				X	X				X		X		⊗				X
2	AOD-WC-2		1120		1																						
3	AOD-WC-3		1150		5																						X
4	AOD-WC-4		1200		1																						
5	AFP-WC-1		1210		5									X													X
6	AFP-WC-2		1220		5																		⊗				
7	AFP-WC-3		1230		5																						
8	HE-18-P:t-WC-1		1255		4																		⊗				
9	HE-18-P.t-WC-2		1305		1																						

	Signature	Company	Date	Time
Relinquished		DH Env.	5-28-20	1510
Received		OSE	5/28/20	1510
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
⊗ Added 6/4/2020. (1 week TAT)

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

DANGEROUS WASTE DESIGNATION FORM – Concrete Debris

Star Forge, Former Jorgenson Forge Property, Concrete Debris

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Concrete Debris

Generation Process: Concrete pile generated from repair of stormwater piping conveyance.

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 500 tons.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☐Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☒TCLP Conducted
- ☐TCLP Not Conducted

Comments: All samples passed TCLP.

Total Metals
☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:	Up to 37.1	☐ND
Barium:	Up to 110	☐ND
Cadmium:	Up to 2.93	☐ND
Chromium:	Up to 3,330	☐ND
Lead:	Up to 251	☐ND
Mercury:	Up to 0.34	☐ND
Selenium:	Up to 3.12	☐ND
Silver:		☒ND
Copper:	Up to 444	☐ND
Nickel:	Up to 1,240	☐ND
Zinc:	Up to 384	☐ND

Comments: The highest value of all samples is shown.

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Concrete	97-100
Soil	0-3

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☐ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☒ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100(5)(b)) on the highest levels detected for RCRA 8 Metals + Cu, Ni, and Zn along with PAH values. The book designation resulted in an equivalent concentration of 0.0052 which designates as Dangerous Waste, Toxic, WT02. This book designation was refuted by a follow-up fish bioassay in accordance with WAC 173-303-110(3)(b), Biological Testing Methods for the Designation of Dangerous Waste, Method 80-12. The fish bioassay resulted in zero fish mortality and this waste stream is therefore designated as non-dangerous waste.

Applicable Sample ID's: Star-Concrete-Pile, SP02-02-20200327, SP02-03-20200327, SP02-04-20200327, SP02-05-20200327

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2005-008, 2005-008B and 2005-008C)
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☒**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, solid

Designation Performed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-18-2020

Designation Reviewed by: David Hill, PE, CHMM, CPEA
Title: Principal Engineer Date: 05-19-2020

1011 SW Klickitat Way
Suite 107
Seattle, Washington 98134
(206) 293-3126

Field Report

File Name: FR-1 Star Forge Site Waste Sampling 5-1-20

	Project: Star Forge, LLC		Date: 5/1/2020
	Owner: Star Forge. LLC	Time of Arrival: 1000	Report Number: 1
Prepared by: Stacy Fox, CHMM	Location: 8531 East Marginal Way	Time of Departure: 1130	Page: Page 1 of 2
Purpose of Site Visit: Waste Characterization Sampling	Weather: Clear, sunny, ~65 deg F	Travel/Prep. Time: 1 hr	Project/Contract Number: WO-01 – General Compliance and Coordination

Upon arrival to the site I assessed personal safety hazards: ☒ Yes or ☐ Referred to Site Safety Plan and Safety Tailgate if applicable
Safety Hazards Were Addressed by : ☐ Performing tool box safety meeting ☒ Donning PPE, and observing safety standards

Site Visit Purpose and Details:

A site visit was conducted to collect samples from a concrete debris pile currently staged in the "Machine Shop" area at the Former Jorgensen Forge Site. Samples were collected for laboratory analysis for: VOCs, SVOCs, PCBs, & Total Metals (RCRA 8 + Cu, Ni, & Zn), and follow-on analysis for TCLP RCRA 8 Metals and Dangerous Waste Fish Bioassay, if necessary. The concrete pile was previously sampled by Sound Earth Strategies on 3/27/20. The purpose of this sampling event was to confirm the designation with additional data, and to collect a representative sample for a Dangerous Waste Fish Bioassay. We understand the concrete was generated to expose and repair underground piping that conveyed stormwater. The origin of the concrete was the "Heat Treat Area".

Summary of Field Activities:

Concrete Pile Sample - A composite waste characterization sample was collected from the concrete pile. Due to the fact that the concrete pile was previously sampled by Sound Earth Strategies on 3/27/20, only one composite sample was collected to represent and complement the sampling already conducted. The composite sample consisted of six grab samples from the pile (three grab samples were collected from two opposite sides of the pile). The pile varied from large pieces of broken concrete to small granular sized particles. In addition, some soil overburden was commingled and removed with the concrete as was necessary to remove the concrete from the work area.

Photos of the Concrete Pile



Figure 1: Concrete Pile Facing South



Figure 2: Concrete Pile Facing Northwest

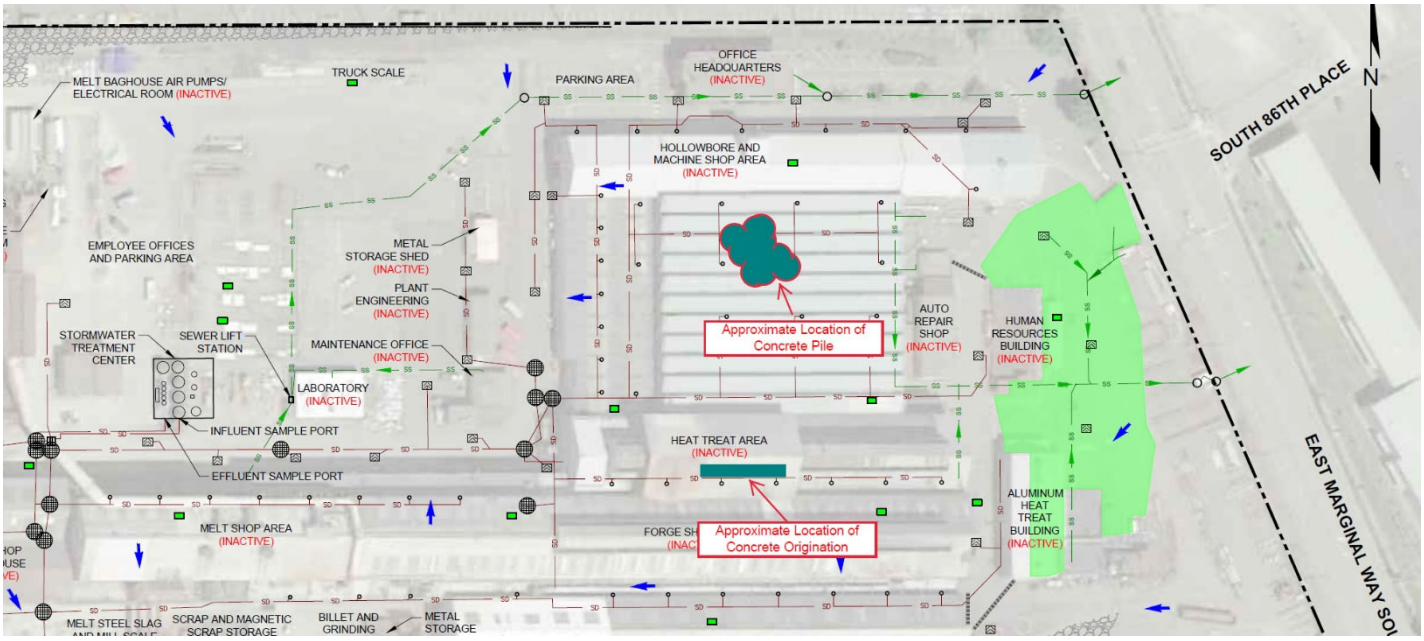


Figure 3: Approximate Location of Concrete Pile and Area of Origination

☒ **THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Field Representative certifies the report was prepared with the intent to portray a true and accurate representation of the work performed or the observations made.	**FIELD REPRESENTATIVE:** Stacy Fox, CHMM	**DATE:** 05/01/2020
☒**THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Reviewer certifies the report has been reviewed and is ready for release to the Client to support work product and/or deliverables without exception.	**REVIEWED BY:** David Hill, PE, CHMM, CPEA	**DATE:** 5/8/2020

This report presents observations and a record of field activities relating to our services only. Other work may have been performed on this project that was not under the direction or guidance of DH Environmental, Inc. Our work did not include supervision or direction of the work of others. DH Environmental, Inc. is not responsible for job or site safety of others on this project. DISCLAIMER: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by DH Environmental, Inc. and will serve as the official document of record.

ATTACHMENTS:

☐ Site Photos ☐ Sketch ☐ Chain of Custody ☐Other: Field Map with sample locations
☐ Sample Log ☐ Drawing(s) ☐ Calibration Records

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete Debris
Applicable Sample IDs: 'Star-Concrete-Pile' (Lab Report 2005-008A)
Sample Date: 05-01-2020
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	37.1	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			3.71E-03		
Barium	7440-39-3	110	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	2.93	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	2.93E-04				
Chromium	7440-47-3	350	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				3.50E-02	
Copper	7440-50-8	444	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		4.44E-02			
Lead	7439-92-1	251	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.51E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	0.34	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A		3.40E-05			
Nickel	7440-02-0	1240	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.24E-01
Selenium	7782-49-2	3.12	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					3.12E-04
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	384	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			3.84E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[1]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					
1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[1]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	NOT APPLICABLE					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[1]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Concrete Debris
Applicable Sample IDs: 'Star-Concrete-Pile' (Lab Report 2005-008A)
Sample Date: 05-01-2020
Book Designation by: Stacy Fox

n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C					
2-methylnaphthalene	91-57-6	0.018	1630 mg/kg Oral Rat LD50[2]	D					**1.80E-06**
1-methylnaphthalene	90-12-0	0.014	1840 mg/kg Oral Rate LD50[2]	D					**1.40E-06**
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	0.015	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B			**1.50E-06**		
Phenanthrene	85-01-8	0.17	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A		**1.70E-05**			
Anthracene	120-12-7	0.025	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X	**2.50E-06**				
Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	0.29	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C				**2.90E-05**	
Benzo(a)anthracene	56-55-3	0.14	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**1.40E-05**	
Chrysene	218-01-9	0.16	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				**1.60E-05**	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.206	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**2.06E-05**	
Benzo(a)pyrene	50-32-8	0.11	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**1.10E-05**	
Indeno(1,2,3-cd)pyrene	193-39-5	0.08	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**8.00E-06**	
Dibenz(a,h)anthracene	53-70-3	0.015	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**1.50E-06**	
Benzo(g,h,i)perylene	198-55-0	0.088	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**8.80E-06**	
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	**Not Applicable**					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	**Not Applicable**					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	**NOT APPLICABLE**					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0002955**	**0.0444510**	**0.0421115**	**0.0602089**	**0.1243**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.96E-04	4.45E-02	4.21E-02	6.02E-02	1.24E-01		
	2.96E-04	4.45E-03	4.21E-04	6.02E-05	1.24E-05	**0.0052344**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 6, 2020

Stacy Fox
DH Environmental, Inc.
1011 SW Klickitat Way, Suite C-107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-008

Dear Stacy:

Enclosed are the analytical results and associated quality control data for samples submitted on May 1, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

Case Narrative

Samples were collected on May 1, 2020 and received by the laboratory on May 1, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
Dichlorodifluoromethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Chloromethane	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Vinyl Chloride	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Bromomethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Chloroethane	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Trichlorofluoromethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,1-Dichloroethene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Acetone	0.034	0.014	EPA 8260D	5-5-20	5-5-20	
Iodomethane	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Carbon Disulfide	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Methylene Chloride	ND	0.0093	EPA 8260D	5-5-20	5-5-20	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Vinyl Acetate	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
2,2-Dichloropropane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
2-Butanone	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Bromochloromethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Chloroform	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,1-Dichloropropene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Benzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2-Dichloroethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Trichloroethene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Dibromomethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Bromodichloromethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Methyl Isobutyl Ketone	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Toluene	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Tetrachloroethene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,3-Dichloropropane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
2-Hexanone	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Dibromochloromethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2-Dibromoethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Chlorobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Ethylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
m,p-Xylene	ND	0.0027	EPA 8260D	5-5-20	5-5-20	
o-Xylene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Styrene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Bromoform	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Isopropylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Bromobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
n-Propylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
2-Chlorotoluene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
4-Chlorotoluene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
tert-Butylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
sec-Butylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
p-Isopropyltoluene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
n-Butylbenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Hexachlorobutadiene	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
Naphthalene	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260D	5-5-20	5-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*74-131*				
Toluene-d8	*89*	*78-128*				
4-Bromofluorobenzene	*88*	*71-130*				

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0505S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Chloromethane	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Bromomethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Chloroethane	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Acetone	ND	0.010	EPA 8260D	5-5-20	5-5-20	
Iodomethane	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Methylene Chloride	ND	0.0068	EPA 8260D	5-5-20	5-5-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
2-Butanone	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Chloroform	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Benzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Toluene	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0505S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
2-Hexanone	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-5-20	5-5-20	
o-Xylene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Styrene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Bromoform	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
Naphthalene	ND	0.0050	EPA 8260D	5-5-20	5-5-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-5-20	5-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*96*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0505S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0432**	**0.0443**	0.0500	0.0500	86	89	55-126	3	18	
Benzene	**0.0453**	**0.0465**	0.0500	0.0500	91	93	65-121	3	16	
Trichloroethene	**0.0484**	**0.0515**	0.0500	0.0500	97	103	74-126	6	16	
Toluene	**0.0480**	**0.0506**	0.0500	0.0500	96	101	71-121	5	15	
Chlorobenzene	**0.0502**	**0.0525**	0.0500	0.0500	100	105	72-123	4	14	
Surrogate:										
Dibromofluoromethane					*92*	*91*	*74-131*			
Toluene-d8					*97*	*97*	*78-128*			
4-Bromofluorobenzene					*97*	*96*	*71-130*			

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

SEMIVOLATILE ORGANICS EPA 8270E/SIM
page 1 of 2

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
n-Nitrosodimethylamine	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Pyridine	**ND**	2.6	EPA 8270E	5-4-20	5-4-20	
Phenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Aniline	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
bis(2-Chloroethyl)ether	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2-Chlorophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,3-Dichlorobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,4-Dichlorobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Benzyl alcohol	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
1,2-Dichlorobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2-Methylphenol (o-Cresol)	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
bis(2-Chloroisopropyl)ether	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
n-Nitroso-di-n-propylamine	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Hexachloroethane	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Nitrobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Isophorone	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2-Nitrophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,4-Dimethylphenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
bis(2-Chloroethoxy)methane	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,4-Dichlorophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,2,4-Trichlorobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Naphthalene	**ND**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
4-Chloroaniline	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
Hexachlorobutadiene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
4-Chloro-3-methylphenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2-Methylnaphthalene	**0.018**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
1-Methylnaphthalene	**0.014**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Hexachlorocyclopentadiene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,4,6-Trichlorophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,3-Dichloroaniline	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,4,5-Trichlorophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2-Chloronaphthalene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2-Nitroaniline	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,4-Dinitrobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Dimethylphthalate	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,3-Dinitrobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,6-Dinitrotoluene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,2-Dinitrobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Acenaphthylene	**ND**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
3-Nitroaniline	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

SEMIVOLATILE ORGANICS EPA 8270E/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
2,4-Dinitrophenol	**ND**	4.4	EPA 8270E	5-4-20	5-4-20	
Acenaphthene	**ND**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
4-Nitrophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,4-Dinitrotoluene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Dibenzofuran	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Diethylphthalate	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
4-Chlorophenyl-phenylether	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
4-Nitroaniline	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Fluorene	**0.015**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
4,6-Dinitro-2-methylphenol	**ND**	2.7	EPA 8270E	5-4-20	5-4-20	
n-Nitrosodiphenylamine	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
1,2-Diphenylhydrazine	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
4-Bromophenyl-phenylether	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Hexachlorobenzene	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Pentachlorophenol	**1.4**	1.3	EPA 8270E	5-4-20	5-4-20	
Phenanthrene	**0.17**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Anthracene	**0.025**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Carbazole	**ND**	0.26	EPA 8270E	5-4-20	5-4-20	
Di-n-butylphthalate	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
Fluoranthene	**0.28**	0.26	EPA 8270E	5-4-20	5-4-20	
Pyrene	**0.29**	0.26	EPA 8270E	5-4-20	5-4-20	
Butylbenzylphthalate	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
bis-2-Ethylhexyladipate	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
3,3'-Dichlorobenzidine	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
Benzo[a]anthracene	**0.14**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Chrysene	**0.16**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
bis(2-Ethylhexyl)phthalate	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
Di-n-octylphthalate	**ND**	1.3	EPA 8270E	5-4-20	5-4-20	
Benzo[b]fluoranthene	**0.14**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Benzo(j,k)fluoranthene	**0.066**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Benzo[a]pyrene	**0.11**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Indeno[1,2,3-cd]pyrene	**0.080**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Dibenz[a,h]anthracene	**0.015**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Benzo[g,h,i]perylene	**0.088**	0.010	EPA 8270E/SIM	5-4-20	5-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*44*	*22 - 109*				
Phenol-d6	*56*	*36 - 110*				
Nitrobenzene-d5	*62*	*31 - 109*				
2-Fluorobiphenyl	*74*	*45 - 107*				
2,4,6-Tribromophenol	*55*	*43 - 124*				
Terphenyl-d14	*74*	*52 - 118*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0504S2					
n-Nitrosodimethylamine	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Pyridine	**ND**	0.33	EPA 8270E	5-4-20	5-4-20	
Phenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Aniline	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
bis(2-Chloroethyl)ether	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2-Chlorophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,3-Dichlorobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,4-Dichlorobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Benzyl alcohol	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
1,2-Dichlorobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2-Methylphenol (o-Cresol)	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
bis(2-Chloroisopropyl)ether	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
n-Nitroso-di-n-propylamine	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Hexachloroethane	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Nitrobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Isophorone	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2-Nitrophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,4-Dimethylphenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
bis(2-Chloroethoxy)methane	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,4-Dichlorophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,2,4-Trichlorobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
4-Chloroaniline	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
Hexachlorobutadiene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
4-Chloro-3-methylphenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Hexachlorocyclopentadiene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,4,6-Trichlorophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,3-Dichloroaniline	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,4,5-Trichlorophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2-Chloronaphthalene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2-Nitroaniline	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,4-Dinitrobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Dimethylphthalate	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,3-Dinitrobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,6-Dinitrotoluene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,2-Dinitrobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
3-Nitroaniline	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0504S2					
2,4-Dinitrophenol	**ND**	0.56	EPA 8270E	5-4-20	5-4-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
4-Nitrophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,4-Dinitrotoluene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Dibenzofuran	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Diethylphthalate	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
4-Chlorophenyl-phenylether	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
4-Nitroaniline	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
4,6-Dinitro-2-methylphenol	**ND**	0.35	EPA 8270E	5-4-20	5-4-20	
n-Nitrosodiphenylamine	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
1,2-Diphenylhydrazine	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
4-Bromophenyl-phenylether	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Hexachlorobenzene	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Pentachlorophenol	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Carbazole	**ND**	0.033	EPA 8270E	5-4-20	5-4-20	
Di-n-butylphthalate	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Butylbenzylphthalate	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
Di-n-octylphthalate	**ND**	0.17	EPA 8270E	5-4-20	5-4-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-4-20	5-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*56*	*22 - 109*				
Phenol-d6	*64*	*36 - 110*				
Nitrobenzene-d5	*64*	*31 - 109*				
2-Fluorobiphenyl	*73*	*45 - 107*				
2,4,6-Tribromophenol	*86*	*43 - 124*				
Terphenyl-d14	*86*	*52 - 118*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0504S2									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	**0.952**	**0.951**	1.33	1.33	72	72	47 - 104	0	30	
2-Chlorophenol	**0.905**	**0.903**	1.33	1.33	68	68	45 - 108	0	31	
1,4-Dichlorobenzene	**0.428**	**0.423**	0.667	0.667	64	63	41 - 105	1	32	
n-Nitroso-di-n-propylamine	**0.454**	**0.455**	0.667	0.667	68	68	47 - 103	0	28	
1,2,4-Trichlorobenzene	**0.454**	**0.439**	0.667	0.667	68	66	42 - 111	3	32	
4-Chloro-3-methylphenol	**1.07**	**1.06**	1.33	1.33	80	80	61 - 108	1	25	
Acenaphthene	**0.506**	**0.499**	0.667	0.667	76	75	54 - 102	1	23	
4-Nitrophenol	**1.16**	**1.13**	1.33	1.33	87	85	53 - 122	3	24	
2,4-Dinitrotoluene	**0.527**	**0.515**	0.667	0.667	79	77	57 - 107	2	22	
Pentachlorophenol	**0.629**	**0.776**	1.33	1.33	47	58	44 - 132	21	23	
Pyrene	**0.546**	**0.536**	0.667	0.667	82	80	58 - 111	2	21	
Surrogate:										
2-Fluorophenol					*65*	*66*	*22 - 109*			
Phenol-d6					*71*	*71*	*36 - 110*			
Nitrobenzene-d5					*72*	*73*	*31 - 109*			
2-Fluorobiphenyl					*75*	*75*	*45 - 107*			
2,4,6-Tribromophenol					*87*	*84*	*43 - 124*			
Terphenyl-d14					*83*	*83*	*52 - 118*			

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

PCBs EPA 8082A

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
Aroclor 1016	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	5-4-20	5-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*92*	*46-125*				

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0504S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-4-20	5-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*93*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.524**	**0.547**	0.500	0.500	0.0600	**93**	**97**	43-125	4	15	
Surrogate:											
DCB						*87*	*89*	*46-125*			

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
Arsenic	**35**	10	EPA 6010D	5-4-20	5-4-20	
Barium	**110**	2.6	EPA 6010D	5-4-20	5-4-20	
Cadmium	**0.94**	0.52	EPA 6010D	5-4-20	5-4-20	
Chromium	**350**	2.6	EPA 6010D	5-4-20	5-4-20	
Copper	**270**	1.0	EPA 6010D	5-4-20	5-4-20	
Lead	**140**	5.2	EPA 6010D	5-4-20	5-4-20	
Mercury	**0.34**	0.26	EPA 7471B	5-5-20	5-5-20	
Nickel	**740**	13	EPA 6010D	5-4-20	5-4-20	
Selenium	**ND**	10	EPA 6010D	5-4-20	5-4-20	
Silver	**ND**	1.0	EPA 6010D	5-4-20	5-4-20	
Zinc	**210**	2.6	EPA 6010D	5-4-20	5-4-20	

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0504SM1					
Arsenic	**ND**	10	EPA 6010D	5-4-20	5-4-20	
Barium	**ND**	2.5	EPA 6010D	5-4-20	5-4-20	
Cadmium	**ND**	0.50	EPA 6010D	5-4-20	5-4-20	
Chromium	**ND**	0.50	EPA 6010D	5-4-20	5-4-20	
Copper	**ND**	1.0	EPA 6010D	5-4-20	5-4-20	
Lead	**ND**	5.0	EPA 6010D	5-4-20	5-4-20	
Nickel	**ND**	2.5	EPA 6010D	5-4-20	5-4-20	
Selenium	**ND**	10	EPA 6010D	5-4-20	5-4-20	
Silver	**ND**	1.0	EPA 6010D	5-4-20	5-4-20	
Zinc	**ND**	2.5	EPA 6010D	5-4-20	5-4-20	
Laboratory ID:	MB0505S1					
Mercury	**ND**	0.25	EPA 7471B	5-5-20	5-5-20	

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-203-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**24.5**	**26.2**	NA	NA		NA		NA	7	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**11.3**	**12.7**	NA	NA		NA		NA	12	20	
Copper	**18.7**	**16.2**	NA	NA		NA		NA	14	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Nickel	**12.3**	**14.4**	NA	NA		NA		NA	16	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**20.6**	**20.5**	NA	NA		NA		NA	0	20	
Laboratory ID:	05-008-01										
Mercury	**0.318**	**0.379**	NA	NA		NA		NA	18	20	
MATRIX SPIKES											
Laboratory ID:	04-203-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**90.4**	**92.9**	100	100	ND	**90**	**93**	75-125	3	20	
Barium	**121**	**121**	100	100	24.5	**97**	**96**	75-125	0	20	
Cadmium	**45.7**	**45.6**	50.0	50.0	ND	**91**	**91**	75-125	0	20	
Chromium	**107**	**103**	100	100	11.3	**95**	**92**	75-125	3	20	
Copper	**66.4**	**66.0**	50.0	50.0	18.7	**95**	**95**	75-125	1	20	
Lead	**224**	**225**	250	250	ND	**90**	**90**	75-125	0	20	
Nickel	**107**	**106**	100	100	12.3	**95**	**93**	75-125	1	20	
Selenium	**88.0**	**87.3**	100	100	ND	**88**	**87**	75-125	1	20	
Silver	**21.5**	**21.9**	25.0	25.0	ND	**86**	**87**	75-125	2	20	
Zinc	**115**	**115**	100	100	20.6	**95**	**94**	75-125	0	20	
Laboratory ID:	05-008-01										
Mercury	**0.915**	**0.771**	0.500	0.500	0.318	**119**	**91**	80-120	17	20	

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Date of Report: May 6, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
Star-Concrete-Pile	05-008-01	**5**	5-4-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Stacy Fox
Sampled by: Stacy Fox

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 05-008

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, N, Zn	Total MTCA Metals	TCLP Metals (HOLD)	HEM (oil and grease) 1664A	Fish Bio (HOLD)	HOLD		% Moisture
1	Star_Concrete-Pile	5-1-20	1030	S	6					X			X		X				X		X		X			X
2	Star-Heat-Treat-Floor	5-1-20	1045	S	6					X			X		X				X		X		X	X		
3	Star-Heat-Treat-Floor-E	5-1-20	1100	S	6					X			X		X				X		X		X	X		
4	Star-Forge-Floor-Area	5-1-20	1115	S	6					X			X		X				X		X		X	X		
5	Star-Forge-South-Wall	5-1-20	1130	S	6					X			X		X				X		X		X	X		
6	Star-Mill.Slag.Area	5-1-20	1200	S	6					X			X		X				X		X		X	X		

	Signature	Company	Date	Time
Relinquished		DH Environmental	5-1-20	2:45pm
Received	Van	Spdy	5-1-20	2:50
Relinquished	Van	Spdy	5-1-20	15:20
Received		OSE	5/1/20	1520
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Please send results to:
data@dhenviro.com +
stacyfox@dhenviro.com
⊗ Added 5/4/2020. DB (2-day TAT)

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 8, 2020

Stacy Fox
DH Environmental, Inc.
1011 SW Klickitat Way, Suite C-107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-008B

Dear Stacy:

Enclosed are the analytical results and associated quality control data for samples submitted on May 1, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 8, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008B
Project: Star Forge

Case Narrative

Samples were collected on May 1, 2020 and received by the laboratory on May 1, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 8, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008B
Project: Star Forge

TCLP METALS
EPA 1311/6010D

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**Star-Concrete-Pile**					
Laboratory ID:	05-008-01					
Chromium	**0.023**	0.020	EPA 6010D	5-8-20	5-8-20	
Lead	**ND**	0.20	EPA 6010D	5-8-20	5-8-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 8, 2020
Samples Submitted: May 1, 2020
Laboratory Reference: 2005-008B
Project: Star Forge

TCLP METALS
EPA 1311/6010D
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0508TM1					
Chromium	**ND**	0.020	EPA 6010D	5-8-20	5-8-20	
Lead	**ND**	0.20	EPA 6010D	5-8-20	5-8-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-008-01										
	ORIG	DUP									
Chromium	**0.0226**	**0.0210**	NA	NA		NA		NA	7	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-008-01										
	MS	MSD	MS	MSD		MS	MSD				
Chromium	**3.55**	**3.56**	4.00	4.00	0.0226	**88**	**89**	75-125	0	20	
Lead	**8.50**	**8.65**	10.0	10.0	ND	**85**	**87**	75-125	2	20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

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ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Stacy Fox
Sampled by: Stacy Fox

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 05-008

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	Star_Concrete-Pile	5-1-20	1030	S	6
2	Star-Heat-Treat-Floor	5-1-20	1045	S	6
3	Star-Heat-Treat-Floor-E	5-1-20	1100	S	6
4	Star-Forge-Floor-Area	5-1-20	1115	S	6
5	Star-Forge-South-Wall	5-1-20	1130	S	6
6	Star-Mill.Slag.Area	5-1-20	1200	S	6

Lab ID	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals (HOLD)	HEM (oil and grease) 1664A	Fish Bio (HOLD)		HOLD	TCLP Cr + Pb	% Moisture
1					⊗			⊗		⊗				⊗		X		X			0	⊗
2					X			X		X				X		X		X		X		
3					X			X		X				X		X		X		X		
4					X			X		X				X		X		X		X		
5					X			X		X				X		X		X		X		
6					X			X		X				X		X		X		X		

	Signature	Company	Date	Time
Relinquished		DH Environmental	5-1-20	2:45pm
Received		OnSite	5-1-20	2:50
Relinquished		OnSite	5-1-20	15:20
Received		OSE	5/1/20	1520
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Please send results to:
data@dhenviro.com +
stacyfox@dhenviro.com
⊗ Added 5/4/2020. DB (2-day TAT)
O Added 5/6/2020, 5:00pm. (1 day TAT)

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 18, 2020

Stacy Fox
DH Environmental, Inc.
1011 SW Klickitat Way, Suite C-107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2005-008C

Dear Stacy:

Enclosed are the analytical results and associated quality control data for samples submitted on May 1, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Rainier ENVIRONMENTAL

Dangerous Waste Characterization

Sample ID: Star-Concrete-Pile

Report date: May 18, 2020

Submitted to:

OnSite Environmental
14648 NE 95th Street
Redmond, WA 98052

Rainier Environmental
5013 Pacific Hwy East
Suite 20
Tacoma, WA 98424

1.0 INTRODUCTION

A dangerous waste characterization using the test organism *Oncorhynchus mykiss* (rainbow trout) was conducted on one sample submitted by OnSite Environmental to Rainier Environmental. Testing was conducted following the Washington State Department of Ecology Publication 80-12.

2.0 METHODS

The sample Star-Concrete-Pile, was received in the laboratory on May 12, 2020. Upon arrival at the laboratory the sample was inspected and contents verified against information provided on the chain-of-custody form. The sample was stored at 4°C in the dark until use. The test procedure is outlined in Table 1.

Table 1. Summary of Dangerous Waste Characterization Test Conditions

Parameter	Standard Fish Toxicity Test
Test number	2005-024
Sample ID	Star-Concrete-Pile
Test initiation date; time	5/14/2020; 0915h
Test termination date; time	5/18/2020; 1010h
Endpoint	Mortality at 96-hours
Test chamber	7.5 L Plastic tank
Test temperature	12 ± 1°C
Dilution water	Moderately hard synthetic water
Test solution volume	6 L
Test concentrations (mg/L)	100, 10, 0
Number of organisms/chamber	10
Number of replicates	3
Test organism	*Oncorhynchus mykiss* (rainbow trout)
Feeding	No feeding during test
Photoperiod	16 hours light/ 8 hours dark
Extraction	Rotary agitation (30 +/- 2 rpm) for 18 hours
Reference Toxicant	Copper sulfate
Deviations	None

The test organisms used in the test are outlined in Table 2. The sample was tested using fish received on March 25, 2020.

Table 2. Test organisms (*Oncorhynchus mykiss*)

Test organism age	80 days post swim-up (hatch date 2/3/2020)
Mean weight	0.44 g
Mean length	44 mm
Ratio of longest to shortest	1.2
Loading	0.73 g/L
Test organism source	Trout Lodge; Sumner, WA

3.0 RESULTS

A summary of results for the dangerous waste characterization conducted on sample Star-Concrete-Pile is contained in Table 3. There was no mortality during the test. Based on these results, the sample does not designate as either a dangerous or extremely hazardous waste. Copies of the laboratory bench sheets, statistical summaries of reference toxicant tests, and chain-of-custody form are provided in Appendices A through C.

Table 3. Summary of Results

Sample ID	Concentration (mg/L)	Survival (# fish, N=30)	Percent Mortality	Dangerous Waste Designation
Control	0	30	0	NA
Star-Concrete-Pile	10	30	0	None
	100	30	0	

4.0 QUALITY ASSURANCE

The most recently completed reference toxicant test was initiated May 1, 2020. The LC_{50} of 132 µg/L copper fell within the acceptable range of mean ± two standard deviations of historical test results indicating that the test organisms were of an appropriate degree of sensitivity. The coefficient of variation (CV) for the last 20 tests was 30.6 percent, which is considered excellent by the Biomonitoring Science Advisory Board.

5.0 REFERENCES

WDOE. 2016. Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. Washington State Department of Ecology. Water Quality Program. Publication number: WQ-R-95-80, Revised December 2016.

WDOE. 2009. Biological Testing Methods 80-12 for the Designation of Dangerous Waste. Washington State Department of Ecology. Hazardous Waste and Toxics Reduction Program. Publication number: 80-12, Revised June 2009.

Appendix A
Oncorhynchus mykiss Dangerous Waste Toxicity Test
Raw Bench Sheets

Dangerous Waste Toxicity Test

Client: OnSite Environmental Inc.
Sample ID: Star - Concrete - Pile
Test #: 2005 - 024
Log In #: T20 - 133

Start Date & Time: 5/14/2020 0915
End Date & Time: 5/18/2020 1010
Test Organism: *Oncorhynchus mykiss*
Test Protocol: **Washington State Department of Ecology Publ. 80-12**

Rep	Conc.	Cont #	Number of Live Organisms					Dissolved Oxygen (mg/L)					pH (units)					Conductivity (umhos/cm)					Temperature (°C)					Percent Survival
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
1	CON	9	10	10	10	10	10	8.9	8.5	8.2	7.9	7.4	7.92	7.58	7.38	7.23	7.11	374				351	12.0	11.7	12.4	12.5	12.2	
2		7	10	10	10	10	10	9.0	8.4	8.1	8.0	7.7	7.96	7.61	7.42	7.21	7.10	374				348						
3		2	10	10	10	10	10	9.0	8.3	8.1	7.7	7.5	7.91	7.62	7.41	7.23	7.08	374				347						
1	10 PPM	8	10	10	10	10	10	8.7	8.4	8.0	7.7	7.4	7.94	7.60	7.41	7.19	7.07	380				344	12.1	11.7	12.1	12.5	12.3	
2		1	10	10	10	10	10	8.6	8.2	7.9	7.4	7.1	7.90	7.61	7.37	7.21	7.11	379				345						
3		4	10	10	10	10	10	8.9	8.5	8.3	7.9	7.5	7.89	7.59	7.35	7.22	7.10	377				343						
1	100 PPM	5	10	10	10	10	10	8.9	8.4	8.2	8.0	7.8	7.93	7.61	7.39	7.24	7.11	377				345	12.1	11.7	12.2	12.3	12.1	
2		3	10	10	10	10	10	8.8	8.3	8.4	8.1	7.8	7.99	7.61	7.37	7.24	7.13	376				346						
3		6	10	10	10	10	10	9.1	8.5	8.3	7.9	7.8	7.96	7.62	7.32	7.23	7.14	376				344						
1																												
2																												
3																												
1																												
2																												
3																												
1																												
2																												
3																												
1																												
2																												
3																												
Technician Initials																												

Sample	Alk. (init.)	Hard. (init.)	Alk. (fin.)	Hard. (fin.)	Chlorine
	(mg/L as CaCO3)				(mg/L Cl2)
Control	64	80	64	80	<0.03
100 PPM	60	90	64	90	

Animal Source: Troutlodge
Date Received: 3/25/2020

Test Volume: 6.0L
Date of Hatch: 2/3/2020
Date of Swim up: 2/24/2020

Weights (g): .46 .43 .41 .46 .46 .39 .47 .44 .42 .41
Lengths(mm): 44 41 43 45 47 40 43 42 43 42
Length max/min: 48/40 1.2

μ = .44 Rainier Environmental
μ = 44 Washington Laboratory

Loading: 0.73 g/L

5013 Pacific HWY E Suite 20
Tacoma, WA 98424

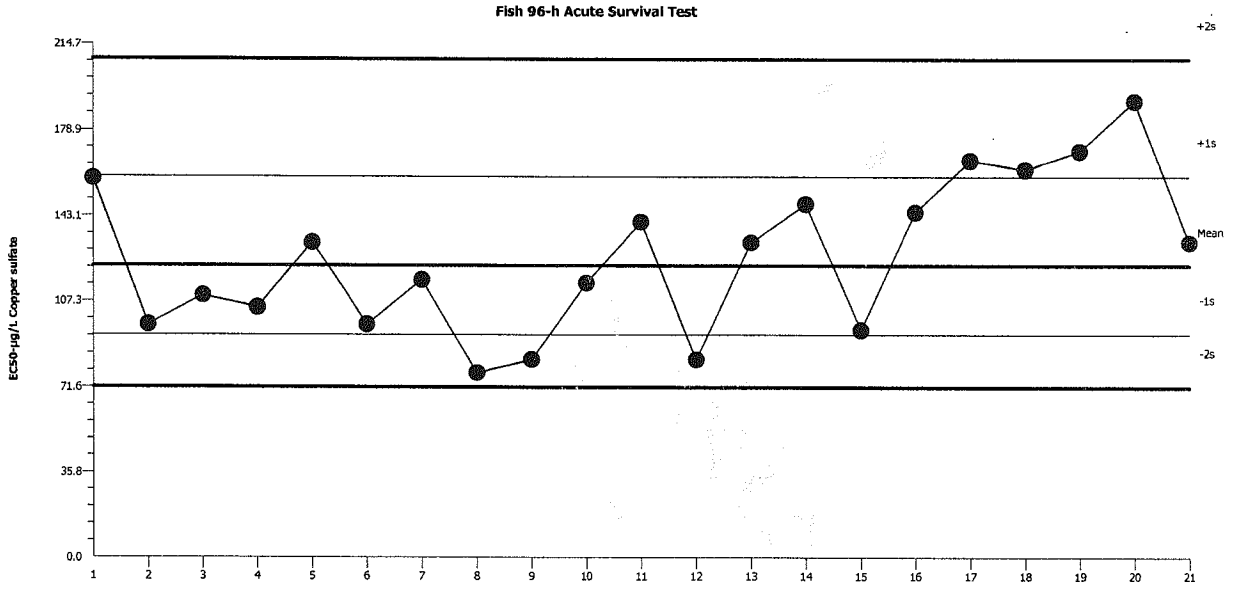
Dilution Water Source: MHSW 038

QA Check

Appendix B
Reference Toxicant Test
Control Chart and Statistical Summary

Fish 96-h Acute Survival Test **Rainier Environmental Laboratory**

Test Type: Survival (96h) **Organism:** Oncorhynchus mykiss (Rainbow Tro **Material:** Copper sulfate
Protocol: Not Applicable **Endpoint:** 96h Survival Rate **Source:** Reference Toxicant-REF



Mean:	122.1	**Count:**	20	**-1s Warning Limit:**	93.48	**-2s Action Limit:**	71.56
Sigma:	NA	**CV:**	30.60%	**+1s Warning Limit:**	159.5	**+2s Action Limit:**	208.4

Quality Control Data

Point	Year	Month	Day	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Jul	25	158.7	36.62	0.9815			03-7661-5860	05-4916-3169
2		Aug	30	97.72	-24.4	-0.8343			01-6631-0399	00-2872-0274
3		Oct	5	109.7	-12.44	-0.402			09-8718-1650	14-5303-2875
4		Nov	6	104.7	-17.39	-0.5749			20-5282-8357	01-3690-0719
5		Dec	5	132	9.831	0.2898			01-4499-1094	07-5652-1457
6	2019	Jan	7	97.72	-24.4	-0.8343			03-9395-5944	09-6087-0434
7		Feb	9	116.1	-5.976	-0.1878			13-6349-4914	05-5573-8325
8		Mar	12	77.56	-44.56	-1.699	(-)		03-9582-1391	08-0363-8342
9		Apr	19	83.12	-39	-1.44	(-)		16-0727-4914	09-8538-6220
10		May	21	114.9	-7.25	-0.229			13-0213-5670	12-8044-7071
11		Jun	21	140.6	18.52	0.5284			18-7198-9789	02-0902-1290
12		Jul	23	83.12	-39	-1.44	(-)		09-5504-5129	09-5466-8341
13		Aug	23	132	9.831	0.2898			06-2129-4986	03-1480-8200
14		Sep	20	148.1	25.99	0.7221			14-9775-6582	02-8526-9159
15		Oct	22	95.48	-26.64	-0.9208			08-2604-9852	04-5996-4554
16		Nov	25	144.7	22.61	0.6357			19-0900-7567	17-7816-6246
17		Dec	26	166.2	44.13	1.154	(+)		18-0718-4325	01-1522-2292
18	2020	Jan	27	162.5	40.33	1.068	(+)		15-7428-0290	09-7189-2054
19		Feb	28	170.1	48.01	1.241	(+)		09-4267-7927	12-7910-1452
20		Apr	1	191	68.85	1.673	(+)		13-6543-5000	21-3363-8866
21		May	1	132	9.831	0.2898			05-3085-5611	09-0915-7454

CETIS Summary Report

Test Code: RA050120OM | 05-3085-5611

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Batch ID:	08-0515-7494	**Test Type:**	Survival (96h)	**Analyst:**	Eric Tollefson
Start Date:	01 May-20 13:45	**Protocol:**	Not Applicable	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	05 May-20 14:00	**Species:**	Oncorhynchus mykiss	**Brine:**	
Duration:	4d 0h	**Source:**	Trout Lodge Fish Farm	**Age:**	67d
Sample ID:	09-9864-7938	**Code:**	RA050120OM	**Client:**	Internal Lab
Sample Date:	01 May-20	**Material:**	Copper sulfate	**Project:**	
Receive Date:	01 May-20	**Source:**	Reference Toxicant		
Sample Age:	14h	**Station:**	In House		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
00-0961-1207	96h Survival Rate	50	100	70.71	22.0%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
09-0915-7454	96h Survival Rate	LC50	132	111.6	156		Spearman-Kärber

96h Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	3	1	1	1	1	1	0	0	0.0%	0.0%
25		3	1	1	1	1	1	0	0	0.0%	0.0%
50		3	0.9333	0.8902	0.9765	0.8	1	0.06667	0.1155	12.37%	6.67%
100		3	0.7333	0.7118	0.7549	0.7	0.8	0.03333	0.05774	7.87%	26.67%
200		3	0.2333	0.1394	0.3273	0	0.5	0.1453	0.2517	107.9%	76.67%
400		3	0	0	0	0	0	0	0		100.0%

96h Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	1	1	1
25		1	1	1
50		1	0.8	1
100		0.7	0.7	0.8
200		0.2	0.5	0
400		0	0	0

96h Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	10/10	10/10	10/10
25		10/10	10/10	10/10
50		10/10	8/10	10/10
100		7/10	7/10	8/10
200		2/10	5/10	0/10
400		0/10	0/10	0/10

Appendix C
Chain-of-Custody Form

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

RUSH

Turnaround Request

1 Day 2 Day 3 Day

Standard

Other: 1 week

Laboratory Reference #: 05-008

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: Star Forge

Project Name:

Laboratory: Rainier Environmental

Attention: Eric Tollefson

Address: 5013 Pacific Highway E, Suite 20, Fife, WA 98424

Phone Number: (253) 922-8898

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	Star-Concrete-Pile	5/1/20	10:30	S	1	Fish Bioassay (Dangerous Waste 80-12 Test)

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:	[signature]	OSE	5/11/20	1600	Log # T20-133
Received by:	Eric Tollefson	RAINIER	5/12/20	1420	
Relinquished by:					
Received by:					
Relinquished by:					
Received by:					

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Stacy Fox
Sampled by: Stacy Fox

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 05-008

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	Star_Concrete-Pile	5-1-20	1030	S	6
2	Star-Heat-Treat-Floor	5-1-20	1045	S	6
3	Star-Heat-Treat-Floor-E	5-1-20	1100	S	6
4	Star-Forge-Floor-Area	5-1-20	1115	S	6
5	Star-Forge-South-Wall	5-1-20	1130	S	6
6	Star-Mill.Slag.Area	5-1-20	1200	S	6

Lab ID	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Fish Bio (HOLD)		HOLD	TCLP Cr + Pb	% Moisture
1					⊗			⊗		⊗				⊗		X		●			O	⊗
2					X			X		X				X		X		X		X		
3					X			X		X				X		X		X		X		
4					X			X		X				X		X		X		X		
5					X			X		X				X		X		X		X		
6					X			X		X				X		X		X		X		

	Signature	Company	Date	Time
Relinquished	Van	DH Environmental	5-1-22	2:45pm
Received	Van	5pdy	5-1-20	2:50
Relinquished		5pdy	5-1-20	15:20
Received		COE	5/1/20	1520
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Please send results to:
data@dhenviro.com +
stacyfox@dhenviro.com
⊗ Added 5/4/2020. DB (2-day TAT)
O Added 5/6/2020, 5:00pm. (1 day TAT)
● Added 5/11/20 KL (1 week tat)

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 6, 2020

Corey League, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr League:

Included are the results from the testing of material submitted on March 27, 2020 from the SOU_0995-002_ 2020, F&BI 003445 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Mindy Graddon
SOU0406R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 27, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0995-002_ 2020, F&BI 003445 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
003445 -01	SP02-01-20200327
003445 -02	SP02-02-20200327
003445 -03	SP02-03-20200327
003445 -04	SP02-04-20200327
003445 -05	SP02-05-20200327

A 6020B internal standard failed the acceptance criteria for several samples. The sample was diluted and reanalyzed with acceptable results. Both data sets were reported.

Selenium in the 6020B matrix spike and matrix spike duplicate failed the acceptance criteria. The laboratory control sample passed the acceptance criteria, therefore the results were due to matrix effect.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-01-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-01
Date Analyzed:	04/01/20	Data File:	003445-01.069
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	20.1
Barium	82.2
Cadmium	2.14
Chromium	2,670 ve J
Copper	277 J
Lead	97.7
Mercury	<1
Nickel	959 J
Selenium	3.12
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-01-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-01 x5
Date Analyzed:	04/02/20	Data File:	003445-01 x5.052
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	3,330
Copper	375
Nickel	1,240
Zinc	265

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-02-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-02
Date Analyzed:	04/01/20	Data File:	003445-02.072
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	29.8
Barium	72.9
Cadmium	<1
Chromium	1,810 ve
Copper	212
Lead	208 ve
Mercury	<1
Nickel	706
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-02-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-02 x5
Date Analyzed:	04/02/20	Data File:	003445-02 x5.055
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	2,140
Lead	240
Zinc	275

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-03-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-03
Date Analyzed:	04/01/20	Data File:	003445-03.075
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	32.6
Barium	93.9
Cadmium	2.93
Chromium	1,020 ve J
Copper	343 J
Lead	208 ve
Mercury	<1
Nickel	872 J
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-03-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-03 x5
Date Analyzed:	04/02/20	Data File:	003445-03 x5.058
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	1,260
Copper	444
Nickel	1,100
Zinc	323

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-04-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-04
Date Analyzed:	04/01/20	Data File:	003445-04.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	37.1
Barium	104
Cadmium	1.50
Chromium	2,060 ve J
Copper	269 J
Lead	251 ve
Mercury	<1
Nickel	845 J
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-04-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-04 x5
Date Analyzed:	04/02/20	Data File:	003445-04 x5.059
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	2,600
Copper	375
Lead	297
Nickel	1,130
Zinc	384

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-05-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-05
Date Analyzed:	04/01/20	Data File:	003445-05.077
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	26.1
Barium	85.5
Cadmium	1.08
Chromium	523 ve J
Copper	252 J
Lead	105
Mercury	<1
Nickel	718 J
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	SP02-05-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	003445-05 x5
Date Analyzed:	04/02/20	Data File:	003445-05 x5.060
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	637
Copper	332
Nickel	915
Zinc	197

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0995-002_ 2020
Date Extracted:	04/01/20	Lab ID:	I0-197 mb
Date Analyzed:	04/02/20	Data File:	I0-197 mb.050
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Zinc	<5

Date of Report: 04/06/20
Date Received: 03/27/20
Project: SOU_0995-002_ 2020, F&BI 003445

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 003445-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	19.0	94	105	75-125	11
Barium	mg/kg (ppm)	50	71.7	98	87	75-125	12
Cadmium	mg/kg (ppm)	10	<5	95	95	75-125	0
Chromium	mg/kg (ppm)	50	3,160	0 b	341 b	75-125	200 b
Copper	mg/kg (ppm)	50	356	844 b	86 b	75-125	163 b
Lead	mg/kg (ppm)	50	103	118 b	76 b	75-125	43 b
Mercury	mg/kg (ppm	5	<5	93	94	75-125	1
Nickel	mg/kg (ppm)	25	1,180	0 b	0 b	75-125	0 b
Selenium	mg/kg (ppm)	5	<5	72 vo	126 vo	75-125	55 vo
Silver	mg/kg (ppm)	10	<5	87	94	75-125	8
Zinc	mg/kg (ppm)	50	252	216 b	86 b	75-125	86 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	84	80-120
Barium	mg/kg (ppm)	50	97	80-120
Cadmium	mg/kg (ppm)	10	101	80-120
Chromium	mg/kg (ppm)	50	97	80-120
Copper	mg/kg (ppm)	50	102	80-120
Lead	mg/kg (ppm)	50	101	80-120
Mercury	mg/kg (ppm)	5	104	80-120
Nickel	mg/kg (ppm)	25	102	80-120
Selenium	mg/kg (ppm)	5	100	80-120
Silver	mg/kg (ppm)	10	101	80-120
Zinc	mg/kg (ppm)	50	96	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

003445 — ME 03-27-20 — BI

Page # 1 of 1

Send Report to Corey League; Mindy Goddon

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.: Jorgensen Forge

PO #: 0995-002

REMARKS: Standard TAT (5-day)

TURNAROUND TIME
- X Standard (2 Weeks)
- RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	RCRA 8 and copper, zinc, and Nickel			Notes
SP02-01-20200327	SP02	—	01	3/27/20	1245	SOIL	1						X			
SP02-02-20200327	↓	—	02	↓	1250	↓	↓						X			
SP02-03-20200327		—	03		1253								X			
SP02-04-20200327		—	04		1255								X			
SP02-05-20200327	↓	—	05	↓	1300	↓	↓						X			

GRM 3/27/20

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Glenn McKenny	SES	3/27/20	1345
Received by:	James Bruya	F&B	3/27	1345
Relinquished by:				
Received by:				

Samples received at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 13, 2020

Corey League, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr League:

Included are the additional results from the testing of material submitted on March 27, 2020 from the SOU_0995-002_ 20200327, F&BI 003445 project. There are 9 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Mindy Graddon
SOU0413R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 27, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0995-002_ 20200327, F&BI 003445 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
003445 -01	SP02-01-20200327
003445 -02	SP02-02-20200327
003445 -03	SP02-03-20200327
003445 -04	SP02-04-20200327
003445 -05	SP02-05-20200327

All quality control requirements were acceptable.

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	SP02-01-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 20200327
Date Extracted:	04/08/20	Lab ID:	003445-01
Date Analyzed:	04/09/20	Data File:	003445-01.042
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Chromium	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	SP02-02-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 20200327
Date Extracted:	04/08/20	Lab ID:	003445-02
Date Analyzed:	04/09/20	Data File:	003445-02.045
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Chromium	<1	5.0
Lead	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	SP02-03-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 20200327
Date Extracted:	04/08/20	Lab ID:	003445-03
Date Analyzed:	04/09/20	Data File:	003445-03.046
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Chromium	<1	5.0
Lead	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	SP02-04-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 20200327
Date Extracted:	04/08/20	Lab ID:	003445-04
Date Analyzed:	04/09/20	Data File:	003445-04.047
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Chromium	<1	5.0
Lead	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	SP02-05-20200327	Client:	SoundEarth Strategies
Date Received:	03/27/20	Project:	SOU_0995-002_ 20200327
Date Extracted:	04/08/20	Lab ID:	003445-05
Date Analyzed:	04/09/20	Data File:	003445-05.048
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Chromium	<1	5.0
Lead	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0995-002_ 20200327
Date Extracted:	04/08/20	Lab ID:	I0-211 mb
Date Analyzed:	04/09/20	Data File:	I0-211 mb.040
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Chromium	<1	5.0
Lead	<1	5.0

Date of Report: 04/13/20
Date Received: 03/27/20
Project: SOU_0995-002_ 20200327, F&BI 003445

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 003445-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/L (ppm)	2.0	<1	100	96	75-125	4
Lead	mg/L (ppm)	1.0	<1	87	84	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/L (ppm)	2.0	96	80-120
Lead	mg/L (ppm)	1.0	90	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

D03445

ME 03-27-20

Page # 1 of 1 BI

Send Report to Corey League ; Windy Craddon

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.: Jorgensen Forge

PO #: 0995-002

REMARKS: Standard TAT (5-day)

TURNAROUND TIME
- X Standard (2 Weeks)
- RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	RCRA 8 and cetpa: zinc, and Nickel	TCLP Cr	TCLP Pb	Notes: ✓ - per CL; 4/b; (2)
SP02-01-20200327	SP02	—	01	3/27/20	1245	SOIL	1						X	✓		
SP02-02-20200327	↓	—	02	↓	1250	↓	↓						X	✓	✓	
SP02-03-20200327		—	03		1253								X	✓	✓	
SP02-04-20200327		—	04		1255								X	✓	✓	
SP02-05-20200327	↓	—	05	↓	1300	↓	↓						X	✓	✓	

GBM 3/27/20

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Glenn McKenny	SES	3/27/20	1345
Received by:	James Brady	F&B	3/27	1345
Relinquished by:				
Received by:				

Samples received at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Table 1
UST Waste Designation Summary Table
Former Jorgenson Forge Property
Tukwila, Washington

Tank ID	Contents	Designation Status	Comments
UST-15	empty	NA	
UST-16	empty	NA	
UST-17	empty	NA	
UST-18	empty	NA	
UST-19	empty	NA	
UST-20	empty	NA	
UST-21	red dyed diesel fuel	exempt, fuels recycling	
UST-22	empty	NA	
UST-26	sand	non-hazardous	Sand may remain in place during change in service
UST-27	oily water	non-hazardous	
UST-28	sand	non-hazardous	Sand may remain in place during change in service
UST-29	oily water	non-hazardous	
UST-30	oily water	non-hazardous	
UST-31	sand	non-hazardous	Sand may remain in place during change in service
UST-32	oily water	non-hazardous	
UST-33	oily water	non-hazardous	
UST-34	oily water	non-hazardous	
UST-35	empty	NA	
N. Tanks Slag		non-hazardous	Slag material overlying the USTs in the N. Tank Farm
S. Tanks Slag		non-hazardous	Slag material overlying the USTs in the S. Tank Farm

Notes:

UST sampling conducted April 21 & 22, 2020

See waste designation packages for analytical details and laboratory analytical reports

DANGEROUS WASTE DESIGNATION FORM – Product (diesel)

Star Forge, Former Jorgenson Forge Property, UST-21

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Product (diesel fuel)

Generation Process: Pump out of UST-21

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:	--	☐ND
Barium:	--	☐ND
Cadmium:	--	☐ND
Chromium:	--	☐ND
Lead:	--	☐ND
Mercury:	--	☐ND
Selenium:	--	☐ND
Silver:	--	☐ND
Copper:	--	☐ND
Nickel:	--	☐ND
Zinc:	--	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☒**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☐ < 0.001 %	[not a Toxic Criteria DW]	☒ < 0.01 %	[NOT APPLICABLE]	☒ < 1.0%	[NOT APPLICABLE]
☐ 0.001 ≥ 1.0 %	[WT02 – DW]	☐ 0.01 to 1.0%	[WP02 – DW]	☐ > 1.0%	[WP03 – EHW]
☐ ≥ 1.0%	[WT01 – EHW]	☐ > 1.0 %	[WP01 – EHW]		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

This material is being managed as a product/fuel for its originally intended purpose and therefore is not solid waste and not subject to WAC 173-303.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-21']; Friedman & Bruya Lab Report 910502 [Sample ID 'UST-21-20191024]; Fremont Analytical Lab Report 910502 [sample ID 'UST-21-20191024])
☐**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Diesel Fuel

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Product (Diesel)
Applicable Sample IDs: 'UST-21' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	--	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	--	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	--	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C					
Copper	7440-50-8	--	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A					
Lead	7439-92-1	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					
Selenium	7782-49-2	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	--	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B					
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Product (Diesel)
Applicable Sample IDs: 'UST-21' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	23	LD50 Oral Rat 5000 mg/kg[1]	D					**2.30E-03**
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	110	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C				**1.10E-02**	
sec-Butylbenzene	135-98-8	17	2240 mg/kg Oral Rat LD50[2]	D					**1.70E-03**
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	30	LD50 Rat oral 4750 mg/kg[2]	D					**3.00E-03**
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	110	LD50 Mouse sc 1994.5 mg/kg[2]	D					**1.10E-02**
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	500	LD50 Oral Rat 490 mg/kg[3]	C				**5.00E-02**	
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	D					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	D					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Product (Diesel)
Applicable Sample IDs: 'UST-21' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0000000**	**0.0000000**	**0.0610000**	**0.0180**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	0.00E+00	0.00E+00	6.10E-02	1.80E-02		
	0.00E+00	0.00E+00	0.00E+00	6.10E-05	1.80E-06	**0.0000628**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Oily Water

Star Forge, Former Jorgenson Forge Property, UST-34

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Oily Water

Generation Process: Pump out of UST-34

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:		☒ND
Barium:	68	☐ND
Cadmium:		☒ND
Chromium:	17	☐ND
Lead:	260	☒ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	7.2	☐ND
Nickel:	89	☐ND
Zinc:	1200	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-34']; Friedman & Bruya Lab Report 910503 [Sample ID 'UST-27-20191024*]) *note sample UST-27 from the F&B report was misidentified and should have been noted as UST-34 per letter dated Mar. 2, 2020 from Marten Law to Ecology.
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, liquid

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-34' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: µg/L | Conversion Factor: 0.0000001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	68	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	17	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.70E-06**	
Copper	7440-50-8	7.2	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**7.20E-07**			
Lead	7439-92-1	260	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**2.60E-05**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	89	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**8.90E-06**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	1200	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**1.20E-04**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-34' (Lab Report 2004-139)
Sample Date: 04-21-2020
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	0.018	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**1.80E-09**	
Chrysene	218-01-9	0.067	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				**6.70E-09**	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.016	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				**1.60E-09**	
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	**Not Applicable**					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	**Not Applicable**					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	**NOT APPLICABLE**					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0000007**	**0.0001200**	**0.0000277**	**0.0000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	7.20E-07	1.20E-04	2.77E-05	8.90E-06		
	0.00E+00	7.20E-08	1.20E-06	2.77E-08	8.90E-10	**0.0000013**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Sand

Star Forge, Former Jorgenson Forge Property, UST-26-Sand

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: soil

Generation Process: clean out of UST-26

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 75 cubic yards (15,000 gal.)
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:		☒ND
Barium:	43	☐ND
Cadmium:		☒ND
Chromium:	11	☐ND
Lead:		☒ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	11	☐ND
Nickel:	15	☐ND
Zinc:	21	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Soil	95-100
Misc. debris	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-26-sand'])
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, soil

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-26-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	43	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	11	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.10E-03**	
Copper	7440-50-8	11	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**1.10E-03**			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	15	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**1.50E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	21	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**2.10E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-26-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	D					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	D					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-26-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0011000**	**0.0021000**	**0.0011000**	**0.0015**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.10E-03	2.10E-03	1.10E-03	1.50E-03		
	0.00E+00	1.10E-04	2.10E-05	1.10E-06	1.50E-07	**0.0001323**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Oily Water

Star Forge, Former Jorgenson Forge Property, UST-27

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: oily water

Generation Process: clean out of UST-27

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:		☒ND
Barium:	60	☐ND
Cadmium:		☒ND
Chromium:	17	☐ND
Lead:	280	☐ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:		☒ND
Nickel:	79	☐ND
Zinc:	240	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-27]; Friedman & Bruya Lab Report 910503 [Sample ID 'UST-34-20191024*]) *note sample UST-34 from the F&B report was misidentified and should have been noted as UST-27 per letter dated Mar. 2, 2020 from Marten Law to Ecology
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, oily water

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-27' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: µg/L | Conversion Factor: 0.0000001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	60	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	17	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.70E-06**	
Copper	7440-50-8	ND	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A					
Lead	7439-92-1	280	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**2.80E-05**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	79	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**7.90E-06**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	240	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**2.40E-05**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-27' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	0.045	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				4.50E-09	
Chrysene	218-01-9	0.19	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				1.90E-08	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.119	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.19E-08	
Benzo(a)pyrene	50-32-8	0.043	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				4.30E-09	
Indeno(1,2,3-cd)pyrene	193-39-5	0.042	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				4.20E-09	
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	0.041	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				4.10E-09	
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0000000**	**0.0000240**	**0.0000297**	**0.0000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	0.00E+00	2.40E-05	2.97E-05	7.90E-06		
	0.00E+00	0.00E+00	2.40E-07	2.97E-08	7.90E-10	**0.0000003**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Sand

Star Forge, Former Jorgenson Forge Property, UST-28-Sand

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: soil

Generation Process: clean out of UST-28

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 75 cubic yards (15,000 gal.)
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:		☒ND
Barium:	74	☐ND
Cadmium:		☒ND
Chromium:	14	☐ND
Lead:		☒ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	21	☐ND
Nickel:	18	☐ND
Zinc:	27	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Soil	95-100
Misc. debris	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-28-sand'])
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, soil

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-28-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	74	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	14	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.40E-03**	
Copper	7440-50-8	21	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**2.10E-03**			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	18	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**1.80E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	27	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**2.70E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-28-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-28-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0021000**	**0.0027000**	**0.0014000**	**0.0018**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.10E-03	2.70E-03	1.40E-03	1.80E-03		
	0.00E+00	2.10E-04	2.70E-05	1.40E-06	1.80E-07	**0.0002386**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Oily Water

Star Forge, Former Jorgenson Forge Property, UST-29

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: oily water

Generation Process: clean out of UST-29

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:		☒ND
Barium:	170	☐ND
Cadmium:		☒ND
Chromium:		☒ND
Lead:	100	☐ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:		☒ND
Nickel:	79	☐ND
Zinc:	89	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-29]; Friedman & Bruya Lab Report 910503 [Sample ID 'UST-32-20191024*]) *note sample UST-32 from the F&B report was misidentified and should have been noted as UST-29 per letter dated Mar. 2, 2020 from Marten Law to Ecology
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, oily water

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-29' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: µg/L | Conversion Factor: 0.0000001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	170	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	ND	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C					
Copper	7440-50-8	ND	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A					
Lead	7439-92-1	100	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.00E-05	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	79	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					7.90E-06
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	89	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			8.90E-06		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-29' (Lab Report 2004-139)
Sample Date: 04-21-2020
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	0.034	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				3.40E-09	
Chrysene	218-01-9	0.14	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				1.40E-08	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.021	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				2.10E-09	
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0000000**	**0.0000089**	**0.0000100**	**0.0000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	0.00E+00	8.90E-06	1.00E-05	7.90E-06		
	0.00E+00	0.00E+00	8.90E-08	1.00E-08	7.90E-10	**0.0000001**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Oily Water

Star Forge, Former Jorgenson Forge Property, UST-30

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: oily water

Generation Process: clean out of UST-30

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:		☒ND
Barium:		☒ND
Cadmium:		☒ND
Chromium:		☒ND
Lead:		☒ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:		☒ND
Nickel:		☒ND
Zinc:		☒ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-30]; Friedman & Bruya Lab Report 910503 [Sample ID 'UST-31-20191024*]) *note sample UST-31 from the F&B report was misidentified and should have been noted as UST-30 per letter dated Mar. 2, 2020 from Marten Law to Ecology
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, oily water

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-30' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: µg/L | Conversion Factor: 0.0000001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	ND	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	ND	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C					
Copper	7440-50-8	ND	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A					
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	ND	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B					
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-30' (Lab Report 2004-139)
Sample Date: 04-21-2020
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0000000**	**0.0000000**	**0.0000000**	**0.0000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	**0.0000000**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Sand

Star Forge, Former Jorgenson Forge Property, UST-31-Sand

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: soil

Generation Process: clean out of UST-31

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 75 cubic yards (15,000 gal.)
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:		☒ND
Barium:	85	☐ND
Cadmium:		☒ND
Chromium:	10	☐ND
Lead:		☒ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	17	☐ND
Nickel:	13	☐ND
Zinc:	22	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Soil	95-100
Misc. debris	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-31-sand'])
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, soil

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-31-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	85	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	10	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.00E-03**	
Copper	7440-50-8	17	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**1.70E-03**			
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	13	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**1.30E-03**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	22	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**2.20E-03**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-31-sand' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	D					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	D					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Soil
Applicable Sample IDs: 'UST-31-sand' (Lab Report 2004-139)
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0017000**	**0.0022000**	**0.0010000**	**0.0013**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.70E-03	2.20E-03	1.00E-03	1.30E-03		
	0.00E+00	1.70E-04	2.20E-05	1.00E-06	1.30E-07	**0.0001931**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Oily Water

Star Forge, Former Jorgenson Forge Property, UST-32

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: oily water

Generation Process: clean out of UST-32

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☐TCLP Conducted
- ☒TCLP Not Conducted

Comments:

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:		☒ND
Barium:		☒ND
Cadmium:		☒ND
Chromium:		☒ND
Lead:		☒ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:		☒ND
Nickel:		☒ND
Zinc:		☒ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 [Sample ID 'UST-32]; Friedman & Bruya Lab Report 910503 [Sample ID 'UST-29-20191024*]) *note sample UST-29 from the F&B report was misidentified and should have been noted as UST-32 per letter dated Mar. 2, 2020 from Marten Law to Ecology
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, oily water

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-32' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: µg/L | Conversion Factor: 0.0000001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	ND	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	ND	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C					
Copper	7440-50-8	ND	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A					
Lead	7439-92-1	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C					
Manganese	7439-96-5	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	ND	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B					
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-32' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-32' (Lab Report 2004-139)
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0000000**	**0.0000000**	**0.0000000**	**0.0000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	**0.0000000**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Oily Water

Star Forge, Former Jorgenson Forge Property, UST-33

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: oily water

Generation Process: clean out of UST-33

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 3,000 gal.
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☒Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here:

PCB Content

- ☒Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☐< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☒TCLP Conducted
- ☐TCLP Not Conducted

Comments: TCLP Lead was non-detect (Lab Report 2004-139B)

Total Metals

☐mg/kg ☐ug/kg ☐mg/L ☒ug/L

Arsenic:		☒ND
Barium:	36,000	☐ND
Cadmium:	39	☐ND
Chromium:	1,600	☐ND
Lead:	6,300	☐ND
Mercury:	14	☐ND
Selenium:		☒ND
Silver:		☒ND
Copper:	3,200	☐ND
Nickel:	420	☐ND
Zinc:	6,900	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
liquid	95-100
Misc. solids	0-5

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☒ **< 0.001 %**	**[not a Toxic Criteria DW]**	☒ **< 0.01 %**	**[NOT APPLICABLE]**	☒ **< 1.0%**	**[NOT APPLICABLE]**
☐ **0.001 ≥ 1.0 %**	**[WT02 – DW]**	☐ **0.01 to 1.0%**	**[WP02 – DW]**	☐ **> 1.0%**	**[WP03 – EHW]**
☐ **≥ 1.0%**	**[WT01 – EHW]**	☐ **> 1.0 %**	**[WP01 – EHW]**		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value of less than 0.001%, this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139 and 2004-139B [Sample ID 'UST-33']; Friedman & Bruya Lab Report 910503 [Sample ID 'UST-28-20191024*]) *note sample UST-28 from the F&B report was misidentified and should have been noted as UST-33 per letter dated Mar. 2, 2020 from Marten Law to Ecology
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☐**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, oily water

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 04-30-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 05-05-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-33' (Lab Report 2004-139)
Sample Date: 04-21-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: µg/L | Conversion Factor: 0.0000001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B					
Barium	7440-39-3	36000	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	39	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	**3.90E-06**				
Chromium	7440-47-3	1600	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				**1.60E-04**	
Copper	7440-50-8	3200	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		**3.20E-04**			
Lead	7439-92-1	6300	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				**6.30E-04**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	14	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A		**1.40E-06**			
Nickel	7440-02-0	420	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					**4.20E-05**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	6900	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			**6.90E-04**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	25	LC Rat Inhalation 50.10 mg/kg[1]	D					**2.50E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	ND	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	ND	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	ND	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Oily Water
Applicable Sample IDs: 'UST-33' (Lab Report 2004-139)
Sample Date: 04-21-2020
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Fluoranthene	206-44-0	ND	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	ND	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	ND	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000039**	**0.0003214**	**0.0006900**	**0.0007900**	**0.0000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	3.90E-06	3.21E-04	6.90E-04	7.90E-04	4.45E-05		
	3.90E-06	3.21E-05	6.90E-06	7.90E-07	4.45E-09	**0.0000437**	**Non-Dangerous Waste**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Slag

Star Forge, Former Jorgenson Forge Property, N. Tanks Slag

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Slag

Generation Process: Excavation

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 1,200 tons
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic	**PCB Content**	**TCLP Metals**
☐Ignitable **[D001]** ☐Corrosive **[D002]** ☐Reactive **[D003]** ☐Toxic **[D004 – D043]** **List Here:**	☐Not Detected **[non TSCA or State Regulated]** ☐Not Sampled ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]** ☐≥ 50 ppm **[TSCA Regulated]** ☒< 1 ppm Note: **IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)**	☐Arsenic ≥ 5.0 mg/L **[D004]** ☐Barium ≥ 100.0 mg/L **[D005]** ☐Cadmium ≥ 1.0 mg/L **[D006]** ☐Chromium ≥ 5.0 mg/L **[D007]** ☐Lead ≥ 5.0 mg/L **[D008]** ☐Mercury ≥ 0.2 mg/L **[D009]** ☐Selenium ≥ 1.0 mg/L **[D010]** ☐Silver ≥ 5.0 mg/L **[D011]** Check if: ☐Assumed ☒TCLP Conducted ☐TCLP Not Conducted **Comments:** Chromium only

Total Metals ☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:	79	☐ND
Barium:	31	☐ND
Cadmium:		☒ND
Chromium:	3900	☐ND
Lead:	70	☐ND
Mercury:		☒ND
Selenium:		☒ND
Silver:		☒ND
Copper:	1200	☐ND
Nickel:	7900	☐ND
Zinc:	170	☐ND

Comments:

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
slag	100

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☐ < 0.001 %	[not a Toxic Criteria DW]	☒ < 0.01 %	[NOT APPLICABLE]	☒ < 1.0%	[NOT APPLICABLE]
☒ 0.001 ≥ 1.0 %	[WT02 – DW]	☐ 0.01 to 1.0%	[WP02 – DW]	☐ > 1.0%	[WP03 – EHW]
☐ ≥ 1.0%	[WT01 – EHW]	☐ > 1.0 %	[WP01 – EHW]		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value which would designate as Toxic, WT-02. This book designation was refuted by a follow-up fish bioassay in accordance with WAC 173-303-110(3)(b), *Biological Testing Methods for the Designation of Dangerous Waste Method 80-12*. The fish bioassay demonstrated zero fish mortality and this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139C, 2004-139D, & 2004-139E (sample ID 'N. Tanks Slag')
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☒**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, solids

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 06-08-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-08-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Slag
Applicable Sample IDs: 'N. Tanks Slag' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	79	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			7.90E-03		
Barium	7440-39-3	31	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	3900	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				3.90E-01	
Copper	7440-50-8	1200	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.20E-01			
Lead	7439-92-1	70	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				7.00E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	7900	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					7.90E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	170	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.70E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Slag
Applicable Sample IDs: 'N. Tanks Slag' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	NOT APPLICABLE					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	0.1	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B			1.00E-05		
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	0.051	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C				5.10E-06	
2-methylnaphthalene	91-57-6	0.024	1630 mg/kg Oral Rat LD50[2]	D					2.40E-06
1-methylnaphthalene	90-12-0	0.018	1840 mg/kg Oral Rate LD50[2]	D					1.80E-06
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B					
Phenanthrene	85-01-8	0.028	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A		2.80E-06			
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Slag
Applicable Sample IDs: 'N. Tanks Slag' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Fluoranthene	206-44-0	0.036	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C				3.60E-06	
Pyrene	129-00-0	0.026	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C				2.60E-06	
Benzo(a)anthracene	56-55-3	0.01	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.00E-06	
Chrysene	218-01-9	0.031	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				3.10E-06	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.0385	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				3.85E-06	
Benzo(a)pyrene	50-32-8	0.014	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.40E-06	
Indeno(1,2,3-cd)pyrene	193-39-5	0.015	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.50E-06	
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	0.016	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.60E-06	
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.1200028**	**0.0249100**	**0.3970238**	**0.7900**

Enter Category Mass % Here →	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
	0.00E+00	1.20E-01	2.49E-02	3.97E-01	7.90E-01		
	0.00E+00	1.20E-02	2.49E-04	3.97E-04	7.90E-05	**0.0127254**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

DANGEROUS WASTE DESIGNATION FORM – Slag

Star Forge, Former Jorgenson Forge Property, S. Tanks Slag

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Slag

Generation Process: Excavation

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813	Approximately 1,000 tons
Other Descriptions (i.e. Shop, Project, Etc.):	

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☒Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☒N/A
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☐> 200 °F

Characteristic	**PCB Content**	**TCLP Metals**	**Total Metals** ☒mg/kg ☐ug/kg ☐mg/L ☐ug/L		
☐Ignitable **[D001]**	☒Not Detected **[non TSCA or State Regulated]**	☐Arsenic ≥ 5.0 mg/L **[D004]**	Arsenic:	100	☐ND
☐Corrosive **[D002]**	☐Not Sampled	☐Barium ≥ 100.0 mg/L **[D005]**	Barium:	19	☐ND
☐Reactive **[D003]**	☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste- WPCB]**	☐Cadmium ≥ 1.0 mg/L **[D006]**	Cadmium:		☒ND
☐Toxic **[D004 – D043]**	☐≥ 50 ppm **[TSCA Regulated]**	☐Chromium ≥ 5.0 mg/L **[D007]**	Chromium:	3900	☐ND
List Here:	☐< 1 ppm	☐Lead ≥ 5.0 mg/L **[D008]**	Lead:	64	☐ND
	Note: **IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)**	☐Mercury ≥ 0.2 mg/L **[D009]**	Mercury:		☒ND
		☐Selenium ≥ 1.0 mg/L **[D010]**	Selenium:		☒ND
		☐Silver ≥ 5.0 mg/L **[D011]**	Silver:		☒ND
			Copper:	1600	☐ND
		Check if: ☐Assumed ☒TCLP Conducted ☐TCLP Not Conducted	Nickel:	4900	☐ND
			Zinc:	96	☐ND
		Comments: As & Cr only	**Comments:**		

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
slag	100

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☐ < 0.001 %	[not a Toxic Criteria DW]	☒ < 0.01 %	[NOT APPLICABLE]	☒ < 1.0%	[NOT APPLICABLE]
☒ 0.001 ≥ 1.0 %	[WT02 – DW]	☐ 0.01 to 1.0%	[WP02 – DW]	☐ > 1.0%	[WP03 – EHW]
☐ ≥ 1.0%	[WT01 – EHW]	☐ > 1.0 %	[WP01 – EHW]		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

A Washington State toxic criteria book designation was conducted in accordance with WAC 173-303-100, resulting in a calculated equivalent concentration value which would designate as Toxic, WT-02. This book designation was refuted by a follow-up fish bioassay in accordance with WAC 173-303-110(3)(b), *Biological Testing Methods for the Designation of Dangerous Waste Method 80-12*. The fish bioassay demonstrated zero fish mortality and this waste stream is therefore designated as non-dangerous waste.

Attachments:
☐**Field Report**
☐**Sample Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2004-139C, 2004-139D, & 2004-139E (sample ID 'S. Tanks Slag')
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☒**Biological Testing Method 80-12 (Fish Bioassay)**
☐**Other:**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-hazardous waste, solids

Designation Performed by: Nathan Moxley, LHG
Title: Project Geologist Date: 06-08-2020

Designation Reviewed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-08-2020

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Slag
Applicable Sample IDs: 'S. Tanks Slag' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg
Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	100	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.00E-02		
Barium	7440-39-3	19	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	3900	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				3.90E-01	
Copper	7440-50-8	1600	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.60E-01			
Lead	7439-92-1	64	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				6.40E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	4900	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					4.90E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	96	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			9.60E-03		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Slag
Applicable Sample IDs: 'S. Tanks Slag' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	NOT APPLICABLE					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	0.017	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C				**1.70E-06**	
2-methylnaphthalene	91-57-6	0.0091	1630 mg/kg Oral Rat LD50[2]	D					**9.10E-07**
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	D					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B					
Phenanthrene	85-01-8	0.029	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A		**2.90E-06**			
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Slag
Applicable Sample IDs: 'S. Tanks Slag' (Lab Report 2004-139)
Sample Date: 04-22-2020
Book Designation by: Nathan Moxley

Fluoranthene	206-44-0	0.034	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C				3.40E-06	
Pyrene	129-00-0	0.027	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C				2.70E-06	
Benzo(a)anthracene	56-55-3	0.01	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.00E-06	
Chrysene	218-01-9	0.024	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				2.40E-06	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.0325	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				3.25E-06	
Benzo(a)pyrene	50-32-8	0.011	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.10E-06	
Indeno(1,2,3-cd)pyrene	193-39-5	0.013	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.30E-06	
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	0.014	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.40E-06	
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.1600029**	**0.0196000**	**0.3964183**	**0.4900**

Enter Category Mass % Here →	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
	0.00E+00	1.60E-01	1.96E-02	3.96E-01	4.90E-01		
	0.00E+00	1.60E-02	1.96E-04	3.96E-04	4.90E-05	**0.0166417**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 29, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge UST Waste Designation
Laboratory Reference No. 2004-139

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

Case Narrative

Samples were collected on April 21 and 22, 2020 and received by the laboratory on April 22, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D (water) Analysis

Samples UST-34, UST-33, UST-32, UST-30, UST-29 and UST-27 were analyzed at a dilution due to the presence of product in the samples.

Semivolatiles EPA 8270E/SIM (water) Analysis

Sample UST-27 had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

PCBs EPA 8082A (water) Analysis

Sample UST-33 (40%) had DCB surrogate below quality control limits 50-153% due to a high product concentration, resulting in heavy emulsion and an elevated final volume in the extraction process. No further action was performed.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-34**					
Laboratory ID:	04-139-01					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloromethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Vinyl Chloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Trichlorofluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Acetone	ND	10	EPA 8260D	4-28-20	4-28-20	
Iodomethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Carbon Disulfide	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methylene Chloride	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl t-Butyl Ether	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Vinyl Acetate	ND	2.0	EPA 8260D	4-28-20	4-28-20	
2,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Butanone	ND	10	EPA 8260D	4-28-20	4-28-20	
Bromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroform	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Carbon Tetrachloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Benzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Trichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Dibromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromodichloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Toluene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	

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Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-34**					
Laboratory ID:	04-139-01					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Tetrachloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Hexanone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Dibromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromoethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Ethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
m,p-Xylene	ND	0.80	EPA 8260D	4-28-20	4-28-20	
o-Xylene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Styrene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromoform	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Isopropylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Propylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
4-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
tert-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
sec-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
p-Isopropyltoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Hexachlorobutadiene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Naphthalene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*75-127*				
Toluene-d8	*96*	*80-127*				
4-Bromofluorobenzene	*103*	*78-125*				

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Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloromethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Vinyl Chloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Trichlorofluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Acetone	25	10	EPA 8260D	4-28-20	4-28-20	
Iodomethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Carbon Disulfide	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methylene Chloride	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl t-Butyl Ether	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Vinyl Acetate	ND	2.0	EPA 8260D	4-28-20	4-28-20	
2,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Butanone	ND	10	EPA 8260D	4-28-20	4-28-20	
Bromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroform	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Carbon Tetrachloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Benzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Trichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Dibromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromodichloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Toluene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Tetrachloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Hexanone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Dibromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromoethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Ethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
m,p-Xylene	ND	0.80	EPA 8260D	4-28-20	4-28-20	
o-Xylene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Styrene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromoform	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Isopropylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Propylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
4-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
tert-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
sec-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
p-Isopropyltoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Hexachlorobutadiene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Naphthalene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*93*	*75-127*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*104*	*78-125*				

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Project: Star Forge UST Waste Designation

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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-32**					
Laboratory ID:	04-139-03					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloromethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Vinyl Chloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Trichlorofluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Acetone	ND	10	EPA 8260D	4-28-20	4-28-20	
Iodomethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Carbon Disulfide	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methylene Chloride	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl t-Butyl Ether	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Vinyl Acetate	ND	2.0	EPA 8260D	4-28-20	4-28-20	
2,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Butanone	ND	10	EPA 8260D	4-28-20	4-28-20	
Bromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroform	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Carbon Tetrachloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Benzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Trichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Dibromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromodichloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Toluene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-32**					
Laboratory ID:	04-139-03					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Tetrachloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Hexanone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Dibromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromoethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Ethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
m,p-Xylene	ND	0.80	EPA 8260D	4-28-20	4-28-20	
o-Xylene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Styrene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromoform	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Isopropylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Propylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
4-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
tert-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
sec-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
p-Isopropyltoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Hexachlorobutadiene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Naphthalene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*75-127*				
Toluene-d8	*99*	*80-127*				
4-Bromofluorobenzene	*103*	*78-125*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-30**					
Laboratory ID:	04-139-04					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloromethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Vinyl Chloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Trichlorofluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Acetone	ND	10	EPA 8260D	4-28-20	4-28-20	
Iodomethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Carbon Disulfide	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methylene Chloride	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl t-Butyl Ether	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Vinyl Acetate	ND	2.0	EPA 8260D	4-28-20	4-28-20	
2,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Butanone	ND	10	EPA 8260D	4-28-20	4-28-20	
Bromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroform	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Carbon Tetrachloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Benzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Trichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Dibromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromodichloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Toluene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	

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Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-30**					
Laboratory ID:	04-139-04					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Tetrachloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Hexanone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Dibromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromoethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Ethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
m,p-Xylene	ND	0.80	EPA 8260D	4-28-20	4-28-20	
o-Xylene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Styrene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromoform	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Isopropylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Propylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
4-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
tert-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
sec-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
p-Isopropyltoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Hexachlorobutadiene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Naphthalene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*75-127*				
Toluene-d8	*93*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-29**					
Laboratory ID:	04-139-05					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloromethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Vinyl Chloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Trichlorofluoromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Acetone	ND	10	EPA 8260D	4-28-20	4-28-20	
Iodomethane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Carbon Disulfide	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methylene Chloride	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl t-Butyl Ether	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Vinyl Acetate	ND	2.0	EPA 8260D	4-28-20	4-28-20	
2,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Butanone	ND	10	EPA 8260D	4-28-20	4-28-20	
Bromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chloroform	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Carbon Tetrachloride	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Benzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Trichloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Dibromomethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromodichloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Toluene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-28-20	4-28-20	

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Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-29**					
Laboratory ID:	04-139-05					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Tetrachloroethene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Hexanone	ND	4.0	EPA 8260D	4-28-20	4-28-20	
Dibromochloromethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromoethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Chlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Ethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
m,p-Xylene	ND	0.80	EPA 8260D	4-28-20	4-28-20	
o-Xylene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Styrene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromoform	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Isopropylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Bromobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Propylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
2-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
4-Chlorotoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
tert-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
sec-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
p-Isopropyltoluene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
n-Butylbenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
Hexachlorobutadiene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Naphthalene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*75-127*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*105*	*78-125*				

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Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-27**					
Laboratory ID:	04-139-06					
Dichlorodifluoromethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Chloromethane	ND	2.0	EPA 8260D	4-29-20	4-29-20	
Vinyl Chloride	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Bromomethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Chloroethane	ND	2.0	EPA 8260D	4-29-20	4-29-20	
Trichlorofluoromethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,1-Dichloroethene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Acetone	ND	15	EPA 8260D	4-29-20	4-29-20	
Iodomethane	ND	3.0	EPA 8260D	4-29-20	4-29-20	
Carbon Disulfide	ND	0.58	EPA 8260D	4-29-20	4-29-20	
Methylene Chloride	ND	2.0	EPA 8260D	4-29-20	4-29-20	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Methyl t-Butyl Ether	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,1-Dichloroethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Vinyl Acetate	ND	2.8	EPA 8260D	4-29-20	4-29-20	
2,2-Dichloropropane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
2-Butanone	ND	13	EPA 8260D	4-29-20	4-29-20	
Bromochloromethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Chloroform	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,1,1-Trichloroethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Carbon Tetrachloride	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,1-Dichloropropene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Benzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2-Dichloroethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Trichloroethene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2-Dichloropropane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Dibromomethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Bromodichloromethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
2-Chloroethyl Vinyl Ether	ND	2.8	EPA 8260D	4-29-20	4-29-20	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Methyl Isobutyl Ketone	ND	5.4	EPA 8260D	4-29-20	4-29-20	
Toluene	ND	2.0	EPA 8260D	4-29-20	4-29-20	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260D	4-29-20	4-29-20	

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Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-27**					
Laboratory ID:	04-139-06					
1,1,2-Trichloroethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Tetrachloroethene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,3-Dichloropropane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
2-Hexanone	ND	5.4	EPA 8260D	4-29-20	4-29-20	
Dibromochloromethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2-Dibromoethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Chlorobenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Ethylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
m,p-Xylene	ND	0.80	EPA 8260D	4-29-20	4-29-20	
o-Xylene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Styrene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Bromoform	ND	2.0	EPA 8260D	4-29-20	4-29-20	
Isopropylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Bromobenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2,3-Trichloropropane	ND	0.40	EPA 8260D	4-29-20	4-29-20	
n-Propylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
2-Chlorotoluene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
4-Chlorotoluene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
tert-Butylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
sec-Butylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,3-Dichlorobenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
p-Isopropyltoluene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,4-Dichlorobenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2-Dichlorobenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
n-Butylbenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
1,2-Dibromo-3-chloropropane	ND	2.6	EPA 8260D	4-29-20	4-29-20	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
Hexachlorobutadiene	ND	2.0	EPA 8260D	4-29-20	4-29-20	
Naphthalene	ND	2.0	EPA 8260D	4-29-20	4-29-20	
1,2,3-Trichlorobenzene	ND	2.0	EPA 8260D	4-29-20	4-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*75-127*				
Toluene-d8	*98*	*80-127*				
4-Bromofluorobenzene	*105*	*78-125*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0228W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Chloromethane	ND	1.0	EPA 8260D	4-28-20	4-28-20	
Vinyl Chloride	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Bromomethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Chloroethane	ND	1.0	EPA 8260D	4-28-20	4-28-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Acetone	ND	5.0	EPA 8260D	4-28-20	4-28-20	
Iodomethane	ND	1.0	EPA 8260D	4-28-20	4-28-20	
Carbon Disulfide	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Methylene Chloride	ND	1.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Vinyl Acetate	ND	1.0	EPA 8260D	4-28-20	4-28-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
2-Butanone	ND	5.0	EPA 8260D	4-28-20	4-28-20	
Bromochloromethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Chloroform	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Benzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Trichloroethene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Dibromomethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Bromodichloromethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	4-28-20	4-28-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Toluene	ND	1.0	EPA 8260D	4-28-20	4-28-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	4-28-20	4-28-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0228W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Tetrachloroethene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
2-Hexanone	ND	2.0	EPA 8260D	4-28-20	4-28-20	
Dibromochloromethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Chlorobenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Ethylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
m,p-Xylene	ND	0.40	EPA 8260D	4-28-20	4-28-20	
o-Xylene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Styrene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Bromoform	ND	1.0	EPA 8260D	4-28-20	4-28-20	
Isopropylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Bromobenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	4-28-20	4-28-20	
n-Propylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
n-Butylbenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	4-28-20	4-28-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	4-28-20	4-28-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	4-28-20	4-28-20	
Naphthalene	ND	1.0	EPA 8260D	4-28-20	4-28-20	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	4-28-20	4-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*75-127*				
Toluene-d8	*95*	*80-127*				
4-Bromofluorobenzene	*102*	*78-125*				

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Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Chloromethane	ND	1.0	EPA 8260D	4-29-20	4-29-20	
Vinyl Chloride	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Bromomethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Chloroethane	ND	1.0	EPA 8260D	4-29-20	4-29-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Acetone	ND	7.3	EPA 8260D	4-29-20	4-29-20	
Iodomethane	ND	1.5	EPA 8260D	4-29-20	4-29-20	
Carbon Disulfide	ND	0.29	EPA 8260D	4-29-20	4-29-20	
Methylene Chloride	ND	1.0	EPA 8260D	4-29-20	4-29-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Vinyl Acetate	ND	1.4	EPA 8260D	4-29-20	4-29-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
2-Butanone	ND	6.5	EPA 8260D	4-29-20	4-29-20	
Bromochloromethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Chloroform	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Benzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Trichloroethene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Dibromomethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Bromodichloromethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
2-Chloroethyl Vinyl Ether	ND	1.4	EPA 8260D	4-29-20	4-29-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Methyl Isobutyl Ketone	ND	2.7	EPA 8260D	4-29-20	4-29-20	
Toluene	ND	1.0	EPA 8260D	4-29-20	4-29-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	4-29-20	4-29-20	

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Project: Star Forge UST Waste Designation

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QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Tetrachloroethene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
2-Hexanone	ND	2.7	EPA 8260D	4-29-20	4-29-20	
Dibromochloromethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Chlorobenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Ethylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
m,p-Xylene	ND	0.40	EPA 8260D	4-29-20	4-29-20	
o-Xylene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Styrene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Bromoform	ND	1.0	EPA 8260D	4-29-20	4-29-20	
Isopropylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Bromobenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	4-29-20	4-29-20	
n-Propylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
n-Butylbenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
1,2-Dibromo-3-chloropropane	ND	1.3	EPA 8260D	4-29-20	4-29-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	4-29-20	4-29-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	4-29-20	4-29-20	
Naphthalene	ND	1.0	EPA 8260D	4-29-20	4-29-20	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260D	4-29-20	4-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*91*	*75-127*				
Toluene-d8	*97*	*80-127*				
4-Bromofluorobenzene	*100*	*78-125*				

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Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0428W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**10.5**	**9.67**	10.0	10.0	105	97	63-130	8	17	
Benzene	**10.9**	**10.3**	10.0	10.0	109	103	76-125	6	19	
Trichloroethene	**11.6**	**11.3**	10.0	10.0	116	113	76-121	3	18	
Toluene	**10.9**	**10.7**	10.0	10.0	109	107	80-124	2	18	
Chlorobenzene	**11.5**	**11.1**	10.0	10.0	115	111	75-120	4	19	
Surrogate:										
Dibromofluoromethane					*95*	*94*	*75-127*			
Toluene-d8					*97*	*99*	*80-127*			
4-Bromofluorobenzene					*95*	*95*	*78-125*			
Laboratory ID:	SB0429W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**9.13**	**9.77**	10.0	10.0	91	98	63-130	7	17	
Benzene	**9.61**	**10.3**	10.0	10.0	96	103	76-125	7	19	
Trichloroethene	**10.0**	**10.9**	10.0	10.0	100	109	76-121	9	18	
Toluene	**9.59**	**10.4**	10.0	10.0	96	104	80-124	8	18	
Chlorobenzene	**10.2**	**11.2**	10.0	10.0	102	112	75-120	9	19	
Surrogate:										
Dibromofluoromethane					*95*	*91*	*75-127*			
Toluene-d8					*96*	*97*	*80-127*			
4-Bromofluorobenzene					*94*	*95*	*78-125*			

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Matrix: Product
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-21**					
Laboratory ID:	04-139-07					
Dichlorodifluoromethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Chloromethane	ND	23	EPA 8260D	4-23-20	4-23-20	
Vinyl Chloride	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Bromomethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Chloroethane	ND	23	EPA 8260D	4-23-20	4-23-20	
Trichlorofluoromethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Acetone	ND	45	EPA 8260D	4-23-20	4-23-20	
Iodomethane	ND	23	EPA 8260D	4-23-20	4-23-20	
Carbon Disulfide	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Methylene Chloride	ND	23	EPA 8260D	4-23-20	4-23-20	
(trans) 1,2-Dichloroethene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Methyl t-Butyl Ether	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Vinyl Acetate	ND	23	EPA 8260D	4-23-20	4-23-20	
2,2-Dichloropropane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
(cis) 1,2-Dichloroethene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
2-Butanone	ND	23	EPA 8260D	4-23-20	4-23-20	
Bromochloromethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Chloroform	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,1,1-Trichloroethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Carbon Tetrachloride	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloropropene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Benzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloroethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Trichloroethene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloropropane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Dibromomethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Bromodichloromethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
2-Chloroethyl Vinyl Ether	ND	23	EPA 8260D	4-23-20	4-23-20	
(cis) 1,3-Dichloropropene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Methyl Isobutyl Ketone	ND	23	EPA 8260D	4-23-20	4-23-20	
Toluene	ND	23	EPA 8260D	4-23-20	4-23-20	
(trans) 1,3-Dichloropropene	ND	4.5	EPA 8260D	4-23-20	4-23-20	

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Project: Star Forge UST Waste Designation

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-21**					
Laboratory ID:	04-139-07					
1,1,2-Trichloroethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Tetrachloroethene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,3-Dichloropropane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
2-Hexanone	ND	23	EPA 8260D	4-23-20	4-23-20	
Dibromochloromethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromoethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Chlorobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,1,1,2-Tetrachloroethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Ethylbenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
m,p-Xylene	ND	9.1	EPA 8260D	4-23-20	4-23-20	
o-Xylene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Styrene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Bromoform	ND	23	EPA 8260D	4-23-20	4-23-20	
Isopropylbenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Bromobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,1,2,2-Tetrachloroethane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichloropropane	ND	4.5	EPA 8260D	4-23-20	4-23-20	
n-Propylbenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
2-Chlorotoluene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
4-Chlorotoluene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,3,5-Trimethylbenzene	23	4.5	EPA 8260D	4-23-20	4-23-20	
tert-Butylbenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trimethylbenzene	110	4.5	EPA 8260D	4-23-20	4-23-20	
sec-Butylbenzene	17	4.5	EPA 8260D	4-23-20	4-23-20	
1,3-Dichlorobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
p-Isopropyltoluene	30	4.5	EPA 8260D	4-23-20	4-23-20	
1,4-Dichlorobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
1,2-Dichlorobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
n-Butylbenzene	110	4.5	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromo-3-chloropropane	ND	23	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Hexachlorobutadiene	ND	23	EPA 8260D	4-23-20	4-23-20	
Naphthalene	500	23	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichlorobenzene	ND	4.5	EPA 8260D	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*76-131*				
Toluene-d8	*101*	*78-128*				
4-Bromofluorobenzene	*100*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Product
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423P1					
Dichlorodifluoromethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Chloromethane	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Vinyl Chloride	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Bromomethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Chloroethane	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Trichlorofluoromethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Acetone	ND	0.50	EPA 8260D	4-23-20	4-23-20	
Iodomethane	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Carbon Disulfide	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Methylene Chloride	ND	0.25	EPA 8260D	4-23-20	4-23-20	
(trans) 1,2-Dichloroethene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Methyl t-Butyl Ether	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Vinyl Acetate	ND	0.25	EPA 8260D	4-23-20	4-23-20	
2,2-Dichloropropane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
(cis) 1,2-Dichloroethene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
2-Butanone	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Bromochloromethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Chloroform	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,1,1-Trichloroethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Carbon Tetrachloride	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloropropene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Benzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloroethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Trichloroethene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloropropane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Dibromomethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Bromodichloromethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
2-Chloroethyl Vinyl Ether	ND	0.25	EPA 8260D	4-23-20	4-23-20	
(cis) 1,3-Dichloropropene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Methyl Isobutyl Ketone	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Toluene	ND	0.25	EPA 8260D	4-23-20	4-23-20	
(trans) 1,3-Dichloropropene	ND	0.050	EPA 8260D	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423P1 1					
1,1,2-Trichloroethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Tetrachloroethene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,3-Dichloropropane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
2-Hexanone	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Dibromochloromethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromoethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Chlorobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,1,1,2-Tetrachloroethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Ethylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
m,p-Xylene	ND	0.10	EPA 8260D	4-23-20	4-23-20	
o-Xylene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Styrene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Bromoform	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Isopropylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Bromobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,1,2,2-Tetrachloroethane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichloropropane	ND	0.050	EPA 8260D	4-23-20	4-23-20	
n-Propylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
2-Chlorotoluene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
4-Chlorotoluene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,3,5-Trimethylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
tert-Butylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trimethylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
sec-Butylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,3-Dichlorobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
p-Isopropyltoluene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,4-Dichlorobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2-Dichlorobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
n-Butylbenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromo-3-chloropropane	ND	0.25	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Hexachlorobutadiene	ND	0.25	EPA 8260D	4-23-20	4-23-20	
Naphthalene	ND	0.25	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichlorobenzene	ND	0.050	EPA 8260D	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*108*	*76-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Product
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0423P1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0502**	**0.0464**	0.0500	0.0500	100	93	57-133	8	18	
Benzene	**0.0528**	**0.0487**	0.0500	0.0500	106	97	71-129	8	16	
Trichloroethene	**0.0527**	**0.0474**	0.0500	0.0500	105	95	71-122	11	16	
Toluene	**0.0508**	**0.0467**	0.0500	0.0500	102	93	74-125	8	15	
Chlorobenzene	**0.0515**	**0.0470**	0.0500	0.0500	103	94	72-120	9	14	
Surrogate:										
Dibromofluoromethane					*100*	*98*	*76-131*			
Toluene-d8					*99*	*99*	*78-128*			
4-Bromofluorobenzene					*99*	*97*	*71-130*			

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-31-Sand**					
Laboratory ID:	04-139-08					
Dichlorodifluoromethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Chloromethane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Vinyl Chloride	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Bromomethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Chloroethane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Trichlorofluoromethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Acetone	ND	0.0070	EPA 8260D	4-23-20	4-23-20	
Iodomethane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Carbon Disulfide	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Methylene Chloride	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
(trans) 1,2-Dichloroethene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Methyl t-Butyl Ether	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Vinyl Acetate	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
2,2-Dichloropropane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
(cis) 1,2-Dichloroethene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
2-Butanone	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Bromochloromethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Chloroform	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,1,1-Trichloroethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Carbon Tetrachloride	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloropropene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Benzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloroethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Trichloroethene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloropropane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Dibromomethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Bromodichloromethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
2-Chloroethyl Vinyl Ether	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
(cis) 1,3-Dichloropropene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Methyl Isobutyl Ketone	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Toluene	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
(trans) 1,3-Dichloropropene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-31-Sand**					
Laboratory ID:	04-139-08					
1,1,2-Trichloroethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Tetrachloroethene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,3-Dichloropropane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
2-Hexanone	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Dibromochloromethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromoethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Chlorobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,1,1,2-Tetrachloroethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Ethylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
m,p-Xylene	ND	0.0014	EPA 8260D	4-23-20	4-23-20	
o-Xylene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Styrene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Bromoform	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Isopropylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Bromobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,1,2,2-Tetrachloroethane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichloropropane	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
n-Propylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
2-Chlorotoluene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
4-Chlorotoluene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,3,5-Trimethylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
tert-Butylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trimethylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
sec-Butylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,3-Dichlorobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
p-Isopropyltoluene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,4-Dichlorobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2-Dichlorobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
n-Butylbenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromo-3-chloropropane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Hexachlorobutadiene	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Naphthalene	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichlorobenzene	ND	0.00070	EPA 8260D	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*76-131*				
Toluene-d8	*100*	*78-128*				
4-Bromofluorobenzene	*96*	*71-130*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-28-Sand**					
Laboratory ID:	04-139-09					
Dichlorodifluoromethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Chloromethane	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Vinyl Chloride	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Bromomethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Chloroethane	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Trichlorofluoromethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Acetone	ND	0.0056	EPA 8260D	4-23-20	4-23-20	
Iodomethane	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Carbon Disulfide	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Methylene Chloride	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
(trans) 1,2-Dichloroethene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Methyl t-Butyl Ether	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Vinyl Acetate	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
2,2-Dichloropropane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
(cis) 1,2-Dichloroethene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
2-Butanone	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Bromochloromethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Chloroform	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,1,1-Trichloroethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Carbon Tetrachloride	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloropropene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Benzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloroethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Trichloroethene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloropropane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Dibromomethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Bromodichloromethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
2-Chloroethyl Vinyl Ether	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
(cis) 1,3-Dichloropropene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Methyl Isobutyl Ketone	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Toluene	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
(trans) 1,3-Dichloropropene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-28-Sand**					
Laboratory ID:	04-139-09					
1,1,2-Trichloroethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Tetrachloroethene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,3-Dichloropropane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
2-Hexanone	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Dibromochloromethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromoethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Chlorobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,1,1,2-Tetrachloroethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Ethylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
m,p-Xylene	ND	0.0011	EPA 8260D	4-23-20	4-23-20	
o-Xylene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Styrene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Bromoform	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Isopropylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Bromobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,1,2,2-Tetrachloroethane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichloropropane	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
n-Propylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
2-Chlorotoluene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
4-Chlorotoluene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,3,5-Trimethylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
tert-Butylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trimethylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
sec-Butylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,3-Dichlorobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
p-Isopropyltoluene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,4-Dichlorobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2-Dichlorobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
n-Butylbenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromo-3-chloropropane	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Hexachlorobutadiene	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
Naphthalene	ND	0.0028	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichlorobenzene	ND	0.00056	EPA 8260D	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*76-131*				
Toluene-d8	*102*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-26-Sand**					
Laboratory ID:	04-139-10					
Dichlorodifluoromethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Chloromethane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Vinyl Chloride	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Bromomethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Chloroethane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Trichlorofluoromethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Acetone	ND	0.0071	EPA 8260D	4-23-20	4-23-20	
Iodomethane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Carbon Disulfide	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Methylene Chloride	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
(trans) 1,2-Dichloroethene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Methyl t-Butyl Ether	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Vinyl Acetate	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
2,2-Dichloropropane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
(cis) 1,2-Dichloroethene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
2-Butanone	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Bromochloromethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Chloroform	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,1,1-Trichloroethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Carbon Tetrachloride	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloropropene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Benzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloroethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Trichloroethene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloropropane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Dibromomethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Bromodichloromethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
2-Chloroethyl Vinyl Ether	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
(cis) 1,3-Dichloropropene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Methyl Isobutyl Ketone	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Toluene	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
(trans) 1,3-Dichloropropene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-26-Sand**					
Laboratory ID:	04-139-10					
1,1,2-Trichloroethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Tetrachloroethene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,3-Dichloropropane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
2-Hexanone	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Dibromochloromethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromoethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Chlorobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,1,1,2-Tetrachloroethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Ethylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
m,p-Xylene	ND	0.0014	EPA 8260D	4-23-20	4-23-20	
o-Xylene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Styrene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Bromoform	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Isopropylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Bromobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,1,2,2-Tetrachloroethane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichloropropane	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
n-Propylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
2-Chlorotoluene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
4-Chlorotoluene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,3,5-Trimethylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
tert-Butylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trimethylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
sec-Butylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,3-Dichlorobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
p-Isopropyltoluene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,4-Dichlorobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2-Dichlorobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
n-Butylbenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromo-3-chloropropane	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Hexachlorobutadiene	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
Naphthalene	ND	0.0035	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichlorobenzene	ND	0.00071	EPA 8260D	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*100*	*76-131*				
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*99*	*71-130*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Chloromethane	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Bromomethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Chloroethane	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Acetone	ND	0.010	EPA 8260D	4-23-20	4-23-20	
Iodomethane	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Methylene Chloride	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
2-Butanone	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Bromochloromethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Chloroform	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Benzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Trichloroethene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Dibromomethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Toluene	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
2-Hexanone	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Chlorobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Ethylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
m,p-Xylene	ND	0.0020	EPA 8260D	4-23-20	4-23-20	
o-Xylene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Styrene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Bromoform	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Bromobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
Naphthalene	ND	0.0050	EPA 8260D	4-23-20	4-23-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*102*	*76-131*				
Toluene-d8	*100*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0423S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0502**	**0.0464**	0.0500	0.0500	100	93	57-133	8	18	
Benzene	**0.0528**	**0.0487**	0.0500	0.0500	106	97	71-129	8	16	
Trichloroethene	**0.0527**	**0.0474**	0.0500	0.0500	105	95	71-122	11	16	
Toluene	**0.0508**	**0.0467**	0.0500	0.0500	102	93	74-125	8	15	
Chlorobenzene	**0.0515**	**0.0470**	0.0500	0.0500	103	94	72-120	9	14	
Surrogate:										
Dibromofluoromethane					*100*	*98*	*76-131*			
Toluene-d8					*99*	*99*	*78-128*			
4-Bromofluorobenzene					*99*	*97*	*71-130*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-34**					
Laboratory ID:	04-139-01					
n-Nitrosodimethylamine	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	0.14	EPA 8270E/SIM	4-23-20	4-23-20	U1
4-Chloroaniline	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	0.11	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	0.11	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	U1
3-Nitroaniline	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-34**					
Laboratory ID:	04-139-01					
2,4-Dinitrophenol	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	0.11	EPA 8270E/SIM	4-23-20	4-23-20	
4-Nitrophenol	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	0.29	EPA 8270E/SIM	4-23-20	4-23-20	U1
4,6-Dinitro-2-methylphenol	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
n-Nitrosodiphenylamine	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
1,2-Diphenylhydrazine	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
4-Bromophenyl-phenylether	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Hexachlorobenzene	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Pentachlorophenol	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
Phenanthrene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	U1
Anthracene	**ND**	0.39	EPA 8270E/SIM	4-23-20	4-23-20	U1
Carbazole	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Di-n-butylphthalate	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
Fluoranthene	**ND**	0.27	EPA 8270E/SIM	4-23-20	4-23-20	U1
Benzidine	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	0.90	EPA 8270E/SIM	4-23-20	4-23-20	U1
Butylbenzylphthalate	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**0.018**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Chrysene	**0.067**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
bis(2-Ethylhexyl)phthalate	**ND**	5.5	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	1.1	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**0.016**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo(j,k)fluoranthene	**ND**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[a]pyrene	**ND**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Dibenz[a,h]anthracene	**ND**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[g,h,i]perylene	**ND**	0.011	EPA 8270E/SIM	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*45*	*10 - 75*				
Phenol-d6	*34*	*10 - 82*				
Nitrobenzene-d5	*75*	*30 - 101*				
2-Fluorobiphenyl	*83*	*37 - 101*				
2,4,6-Tribromophenol	*108*	*27 - 115*				
Terphenyl-d14	*72*	*45 - 108*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
n-Nitrosodimethylamine	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	230	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	230	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	230	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	23	EPA 8270E/SIM	4-23-20	4-23-20	
4-Chloroaniline	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	23	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	23	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	46	EPA 8270E/SIM	4-23-20	4-24-20	
3-Nitroaniline	**ND**	230	EPA 8270E	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
2,4-Dinitrophenol	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	46	EPA 8270E/SIM	4-23-20	4-24-20	
4-Nitrophenol	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	230	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	230	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	23	EPA 8270E/SIM	4-23-20	4-23-20	
4,6-Dinitro-2-methylphenol	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
n-Nitrosodiphenylamine	**ND**	230	EPA 8270E	4-23-20	4-23-20	
1,2-Diphenylhydrazine	**ND**	230	EPA 8270E	4-23-20	4-23-20	
4-Bromophenyl-phenylether	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Hexachlorobenzene	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Pentachlorophenol	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
Phenanthrene	**ND**	30	EPA 8270E/SIM	4-23-20	4-23-20	U1
Anthracene	**ND**	27	EPA 8270E/SIM	4-23-20	4-23-20	U1
Carbazole	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Di-n-butylphthalate	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
Fluoranthene	**ND**	23	EPA 8270E/SIM	4-23-20	4-23-20	
Benzidine	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	43	EPA 8270E/SIM	4-23-20	4-23-20	U1
Butylbenzylphthalate	**ND**	230	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Chrysene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
bis(2-Ethylhexyl)phthalate	**ND**	1200	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	230	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Benzo(j,k)fluoranthene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Benzo[a]pyrene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Indeno[1,2,3-cd]pyrene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Dibenz[a,h]anthracene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Benzo[g,h,i]perylene	**ND**	4.6	EPA 8270E/SIM	4-23-20	4-24-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	---	*10 - 75*				S
Phenol-d6	---	*10 - 82*				S
Nitrobenzene-d5	---	*30 - 101*				S
2-Fluorobiphenyl	---	*37 - 101*				S
2,4,6-Tribromophenol	---	*27 - 115*				S
Terphenyl-d14	---	*45 - 108*				S

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Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-32**					
Laboratory ID:	04-139-03					
n-Nitrosodimethylamine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
4-Chloroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
3-Nitroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	

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Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-32**					
Laboratory ID:	04-139-03					
2,4-Dinitrophenol	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
4-Nitrophenol	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
4,6-Dinitro-2-methylphenol	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
n-Nitrosodiphenylamine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2-Diphenylhydrazine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Bromophenyl-phenylether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Hexachlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Pentachlorophenol	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
Phenanthrene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Anthracene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Carbazole	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Di-n-butylphthalate	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
Fluoranthene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Benzidine	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Butylbenzylphthalate	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Chrysene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
bis(2-Ethylhexyl)phthalate	**ND**	5.1	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[a]pyrene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*39*	*10 - 75*				
Phenol-d6	*29*	*10 - 82*				
Nitrobenzene-d5	*62*	*30 - 101*				
2-Fluorobiphenyl	*65*	*37 - 101*				
2,4,6-Tribromophenol	*76*	*27 - 115*				
Terphenyl-d14	*67*	*45 - 108*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-30**					
Laboratory ID:	04-139-04					
n-Nitrosodimethylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
4-Chloroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
3-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-30**					
Laboratory ID:	04-139-04					
2,4-Dinitrophenol	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	0.14	EPA 8270E/SIM	4-23-20	4-23-20	U1
4-Nitrophenol	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
4,6-Dinitro-2-methylphenol	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
n-Nitrosodiphenylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Diphenylhydrazine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Bromophenyl-phenylether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Pentachlorophenol	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
Phenanthrene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
Anthracene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
Carbazole	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Di-n-butylphthalate	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
Fluoranthene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
Benzidine	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	0.19	EPA 8270E/SIM	4-23-20	4-23-20	U1
Butylbenzylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**ND**	0.022	EPA 8270E/SIM	4-23-20	4-23-20	U1
Chrysene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
bis(2-Ethylhexyl)phthalate	**ND**	6.0	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo(j,k)fluoranthene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[a]pyrene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Dibenz[a,h]anthracene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[g,h,i]perylene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*40*	*10 - 75*				
Phenol-d6	*31*	*10 - 82*				
Nitrobenzene-d5	*61*	*30 - 101*				
2-Fluorobiphenyl	*65*	*37 - 101*				
2,4,6-Tribromophenol	*80*	*27 - 115*				
Terphenyl-d14	*62*	*45 - 108*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-29**					
Laboratory ID:	04-139-05					
n-Nitrosodimethylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
4-Chloroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	0.59	EPA 8270E/SIM	4-23-20	4-24-20	
3-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
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SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-29**					
Laboratory ID:	04-139-05					
2,4-Dinitrophenol	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	1.2	EPA 8270E/SIM	4-23-20	4-24-20	U1
4-Nitrophenol	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	0.59	EPA 8270E/SIM	4-23-20	4-24-20	
4,6-Dinitro-2-methylphenol	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
n-Nitrosodiphenylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Diphenylhydrazine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Bromophenyl-phenylether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Pentachlorophenol	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
Phenanthrene	**ND**	0.93	EPA 8270E/SIM	4-23-20	4-24-20	U1
Anthracene	**ND**	0.79	EPA 8270E/SIM	4-23-20	4-24-20	U1
Carbazole	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Di-n-butylphthalate	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
Fluoranthene	**ND**	0.59	EPA 8270E/SIM	4-23-20	4-24-20	
Benzidine	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	0.59	EPA 8270E/SIM	4-23-20	4-24-20	
Butylbenzylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**0.034**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Chrysene	**0.14**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
bis(2-Ethylhexyl)phthalate	**ND**	5.9	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**0.021**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo(j,k)fluoranthene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[a]pyrene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Dibenz[a,h]anthracene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[g,h,i]perylene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*41*	*10 - 75*				
Phenol-d6	*30*	*10 - 82*				
Nitrobenzene-d5	*52*	*30 - 101*				
2-Fluorobiphenyl	*88*	*37 - 101*				
2,4,6-Tribromophenol	*90*	*27 - 115*				
Terphenyl-d14	*48*	*45 - 108*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-27**					
Laboratory ID:	04-139-06					
n-Nitrosodimethylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
4-Chloroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	0.12	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	0.61	EPA 8270E/SIM	4-23-20	4-24-20	
3-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-27**					
Laboratory ID:	04-139-06					
2,4-Dinitrophenol	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	0.61	EPA 8270E/SIM	4-23-20	4-24-20	
4-Nitrophenol	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	0.61	EPA 8270E/SIM	4-23-20	4-24-20	
4,6-Dinitro-2-methylphenol	**ND**	30	EPA 8270E	4-23-20	4-24-20	
n-Nitrosodiphenylamine	**ND**	6.1	EPA 8270E	4-23-20	4-24-20	
1,2-Diphenylhydrazine	**ND**	6.1	EPA 8270E	4-23-20	4-24-20	
4-Bromophenyl-phenylether	**ND**	6.1	EPA 8270E	4-23-20	4-24-20	
Hexachlorobenzene	**ND**	6.1	EPA 8270E	4-23-20	4-24-20	
Pentachlorophenol	**ND**	30	EPA 8270E	4-23-20	4-24-20	
Phenanthrene	**ND**	0.61	EPA 8270E/SIM	4-23-20	4-24-20	
Anthracene	**ND**	0.61	EPA 8270E/SIM	4-23-20	4-24-20	
Carbazole	**ND**	6.1	EPA 8270E	4-23-20	4-24-20	
Di-n-butylphthalate	**ND**	30	EPA 8270E	4-23-20	4-24-20	
Fluoranthene	**ND**	0.61	EPA 8270E/SIM	4-23-20	4-24-20	
Benzidine	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	0.69	EPA 8270E/SIM	4-23-20	4-24-20	U1
Butylbenzylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**0.045**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Chrysene	**0.19**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
bis(2-Ethylhexyl)phthalate	**ND**	6.1	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	1.2	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**0.097**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo(j,k)fluoranthene	**0.022**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[a]pyrene	**0.043**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Indeno[1,2,3-cd]pyrene	**0.042**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Dibenz[a,h]anthracene	**ND**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[g,h,i]perylene	**0.041**	0.012	EPA 8270E/SIM	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*35*	*10 - 75*				
Phenol-d6	*28*	*10 - 82*				
Nitrobenzene-d5	*39*	*30 - 101*				
2-Fluorobiphenyl	*69*	*37 - 101*				
2,4,6-Tribromophenol	*51*	*27 - 115*				
Terphenyl-d14	*41*	*45 - 108*				Q

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423W2					
n-Nitrosodimethylamine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Pyridine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Phenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Aniline	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethyl)ether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Chlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,3-Dichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,4-Dichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Benzyl alcohol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2-Dichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Methylphenol (o-Cresol)	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroisopropyl)ether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
n-Nitroso-di-n-propylamine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Hexachloroethane	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Nitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Isophorone	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Nitrophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4-Dimethylphenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
bis(2-Chloroethoxy)methane	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4-Dichlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2,4-Trichlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Naphthalene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
4-Chloroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Hexachlorobutadiene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Chloro-3-methylphenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Methylnaphthalene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
1-Methylnaphthalene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Hexachlorocyclopentadiene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4,6-Trichlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,3-Dichloroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,4,5-Trichlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Chloronaphthalene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2-Nitroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,4-Dinitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Dimethylphthalate	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
1,3-Dinitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,6-Dinitrotoluene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2-Dinitrobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Acenaphthylene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
3-Nitroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423W2					
2,4-Dinitrophenol	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
Acenaphthene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
4-Nitrophenol	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
2,4-Dinitrotoluene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Dibenzofuran	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,3,5,6-Tetrachlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
2,3,4,6-Tetrachlorophenol	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Diethylphthalate	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Chlorophenyl-phenylether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Nitroaniline	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Fluorene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
4,6-Dinitro-2-methylphenol	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
n-Nitrosodiphenylamine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
1,2-Diphenylhydrazine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
4-Bromophenyl-phenylether	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Hexachlorobenzene	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Pentachlorophenol	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
Phenanthrene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Anthracene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Carbazole	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Di-n-butylphthalate	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
Fluoranthene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Benzidine	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
Pyrene	**ND**	0.10	EPA 8270E/SIM	4-23-20	4-23-20	
Butylbenzylphthalate	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
bis-2-Ethylhexyladipate	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
3,3'-Dichlorobenzidine	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Benzo[a]anthracene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Chrysene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
bis(2-Ethylhexyl)phthalate	**ND**	5.0	EPA 8270E	4-23-20	4-23-20	
Di-n-octylphthalate	**ND**	1.0	EPA 8270E	4-23-20	4-23-20	
Benzo[b]fluoranthene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo(j,k)fluoranthene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[a]pyrene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Dibenz[a,h]anthracene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Benzo[g,h,i]perylene	**ND**	0.010	EPA 8270E/SIM	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*36*	*10 - 75*				
Phenol-d6	*26*	*10 - 82*				
Nitrobenzene-d5	*59*	*30 - 101*				
2-Fluorobiphenyl	*58*	*37 - 101*				
2,4,6-Tribromophenol	*84*	*27 - 115*				
Terphenyl-d14	*76*	*45 - 108*				

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Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-128-01										
	MS	MSD	MS	MSD		MS	MSD				
Phenol	**197**	**201**	160	160	100	61	63	20 - 108	2	30	
2-Chlorophenol	**111**	**108**	160	160	ND	69	68	24 - 105	3	37	
1,4-Dichlorobenzene	**47.6**	**45.6**	80.0	80.0	ND	60	57	24 - 87	4	39	
n-Nitroso-di-n-propylamine	**72.0**	**75.4**	80.0	80.0	ND	90	94	25 - 133	5	30	
1,2,4-Trichlorobenzene	**62.3**	**59.8**	80.0	80.0	ND	78	75	34 - 95	4	35	
4-Chloro-3-methylphenol	**163**	**161**	160	160	ND	102	101	44 - 113	1	23	
Acenaphthene	**62.1**	**61.3**	80.0	80.0	ND	78	77	47 - 106	1	19	
4-Nitrophenol	**192**	**171**	160	160	ND	120	107	20 - 120	12	35	
2,4-Dinitrotoluene	**58.5**	**59.0**	80.0	80.0	ND	73	74	45 - 106	1	21	
Pentachlorophenol	**152**	**148**	160	160	ND	95	93	20 - 136	3	40	
Pyrene	**55.8**	**55.8**	80.0	80.0	ND	70	70	51 - 111	0	16	
Surrogate:											
2-Fluorophenol						*59*	*59*	*10 - 75*			
Phenol-d6						*61*	*63*	*10 - 82*			
Nitrobenzene-d5						*89*	*85*	*30 - 101*			
2-Fluorobiphenyl						*79*	*79*	*37 - 101*			
2,4,6-Tribromophenol						*76*	*75*	*27 - 115*			
Terphenyl-d14						*70*	*70*	*45 - 108*			

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Samples Submitted: April 22, 2020
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Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-31-Sand**					
Laboratory ID:	04-139-08					
n-Nitrosodimethylamine	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Pyridine	**ND**	0.38	EPA 8270E	4-24-20	4-24-20	
Phenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Aniline	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethyl)ether	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2-Chlorophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,3-Dichlorobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,4-Dichlorobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Benzyl alcohol	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
1,2-Dichlorobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2-Methylphenol (o-Cresol)	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroisopropyl)ether	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
n-Nitroso-di-n-propylamine	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Hexachloroethane	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Nitrobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Isophorone	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2-Nitrophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,4-Dimethylphenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethoxy)methane	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,4-Dichlorophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,2,4-Trichlorobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Naphthalene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
4-Chloroaniline	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Hexachlorobutadiene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
4-Chloro-3-methylphenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2-Methylnaphthalene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
1-Methylnaphthalene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Hexachlorocyclopentadiene	**ND**	0.051	EPA 8270E	4-24-20	4-24-20	
2,4,6-Trichlorophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,3-Dichloroaniline	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,4,5-Trichlorophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2-Chloronaphthalene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2-Nitroaniline	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,4-Dinitrobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Dimethylphthalate	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,3-Dinitrobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,6-Dinitrotoluene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,2-Dinitrobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Acenaphthylene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
3-Nitroaniline	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-31-Sand**					
Laboratory ID:	04-139-08					
2,4-Dinitrophenol	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Acenaphthene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
4-Nitrophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,4-Dinitrotoluene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Dibenzofuran	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Diethylphthalate	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
4-Chlorophenyl-phenylether	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
4-Nitroaniline	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Fluorene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
4,6-Dinitro-2-methylphenol	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
n-Nitrosodiphenylamine	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
1,2-Diphenylhydrazine	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
4-Bromophenyl-phenylether	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Hexachlorobenzene	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Pentachlorophenol	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Phenanthrene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Anthracene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Carbazole	**ND**	0.038	EPA 8270E	4-24-20	4-24-20	
Di-n-butylphthalate	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Fluoranthene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Pyrene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Butylbenzylphthalate	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
bis-2-Ethylhexyladipate	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
3,3'-Dichlorobenzidine	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Benzo[a]anthracene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Chrysene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Di-n-octylphthalate	**ND**	0.19	EPA 8270E	4-24-20	4-24-20	
Benzo[b]fluoranthene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo(j,k)fluoranthene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[a]pyrene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Dibenz[a,h]anthracene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[g,h,i]perylene	**ND**	0.0075	EPA 8270E/SIM	4-24-20	4-24-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*53*	*21 - 107*				
Phenol-d6	*63*	*30 - 106*				
Nitrobenzene-d5	*55*	*28 - 109*				
2-Fluorobiphenyl	*74*	*37 - 107*				
2,4,6-Tribromophenol	*84*	*39 - 116*				
Terphenyl-d14	*89*	*41 - 113*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-28-Sand**					
Laboratory ID:	04-139-09					
n-Nitrosodimethylamine	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Pyridine	**ND**	0.39	EPA 8270E	4-24-20	4-24-20	
Phenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Aniline	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethyl)ether	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2-Chlorophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,3-Dichlorobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,4-Dichlorobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Benzyl alcohol	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
1,2-Dichlorobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2-Methylphenol (o-Cresol)	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroisopropyl)ether	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
n-Nitroso-di-n-propylamine	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Hexachloroethane	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Nitrobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Isophorone	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2-Nitrophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,4-Dimethylphenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethoxy)methane	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,4-Dichlorophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,2,4-Trichlorobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Naphthalene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
4-Chloroaniline	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Hexachlorobutadiene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
4-Chloro-3-methylphenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2-Methylnaphthalene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
1-Methylnaphthalene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Hexachlorocyclopentadiene	**ND**	0.054	EPA 8270E	4-24-20	4-24-20	
2,4,6-Trichlorophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,3-Dichloroaniline	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,4,5-Trichlorophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2-Chloronaphthalene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2-Nitroaniline	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,4-Dinitrobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Dimethylphthalate	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,3-Dinitrobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,6-Dinitrotoluene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,2-Dinitrobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Acenaphthylene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
3-Nitroaniline	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-28-Sand**					
Laboratory ID:	04-139-09					
2,4-Dinitrophenol	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Acenaphthene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
4-Nitrophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,4-Dinitrotoluene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Dibenzofuran	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Diethylphthalate	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
4-Chlorophenyl-phenylether	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
4-Nitroaniline	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Fluorene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
4,6-Dinitro-2-methylphenol	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
n-Nitrosodiphenylamine	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
1,2-Diphenylhydrazine	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
4-Bromophenyl-phenylether	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Hexachlorobenzene	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Pentachlorophenol	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Phenanthrene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Anthracene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Carbazole	**ND**	0.039	EPA 8270E	4-24-20	4-24-20	
Di-n-butylphthalate	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Fluoranthene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Pyrene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Butylbenzylphthalate	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
bis-2-Ethylhexyladipate	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
3,3'-Dichlorobenzidine	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Benzo[a]anthracene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Chrysene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Di-n-octylphthalate	**ND**	0.20	EPA 8270E	4-24-20	4-24-20	
Benzo[b]fluoranthene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[a]pyrene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[g,h,i]perylene	**ND**	0.0078	EPA 8270E/SIM	4-24-20	4-24-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*56*	*21 - 107*				
Phenol-d6	*59*	*30 - 106*				
Nitrobenzene-d5	*49*	*28 - 109*				
2-Fluorobiphenyl	*71*	*37 - 107*				
2,4,6-Tribromophenol	*71*	*39 - 116*				
Terphenyl-d14	*78*	*41 - 113*				

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Date of Report: April 29, 2020
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Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-26-Sand**					
Laboratory ID:	04-139-10					
n-Nitrosodimethylamine	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Pyridine	**ND**	0.36	EPA 8270E	4-24-20	4-24-20	
Phenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Aniline	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethyl)ether	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2-Chlorophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,3-Dichlorobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,4-Dichlorobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Benzyl alcohol	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
1,2-Dichlorobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2-Methylphenol (o-Cresol)	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroisopropyl)ether	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
n-Nitroso-di-n-propylamine	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Hexachloroethane	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Nitrobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Isophorone	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2-Nitrophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,4-Dimethylphenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethoxy)methane	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,4-Dichlorophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,2,4-Trichlorobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Naphthalene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
4-Chloroaniline	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Hexachlorobutadiene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
4-Chloro-3-methylphenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2-Methylnaphthalene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
1-Methylnaphthalene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Hexachlorocyclopentadiene	**ND**	0.049	EPA 8270E	4-24-20	4-24-20	
2,4,6-Trichlorophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,3-Dichloroaniline	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,4,5-Trichlorophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2-Chloronaphthalene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2-Nitroaniline	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,4-Dinitrobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Dimethylphthalate	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,3-Dinitrobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,6-Dinitrotoluene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,2-Dinitrobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Acenaphthylene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
3-Nitroaniline	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-26-Sand**					
Laboratory ID:	04-139-10					
2,4-Dinitrophenol	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Acenaphthene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
4-Nitrophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,4-Dinitrotoluene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Dibenzofuran	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Diethylphthalate	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
4-Chlorophenyl-phenylether	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
4-Nitroaniline	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Fluorene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
4,6-Dinitro-2-methylphenol	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
n-Nitrosodiphenylamine	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
1,2-Diphenylhydrazine	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
4-Bromophenyl-phenylether	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Hexachlorobenzene	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Pentachlorophenol	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Phenanthrene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Anthracene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Carbazole	**ND**	0.036	EPA 8270E	4-24-20	4-24-20	
Di-n-butylphthalate	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Fluoranthene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Pyrene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Butylbenzylphthalate	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
bis-2-Ethylhexyladipate	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
3,3'-Dichlorobenzidine	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Benzo[a]anthracene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Chrysene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Di-n-octylphthalate	**ND**	0.18	EPA 8270E	4-24-20	4-24-20	
Benzo[b]fluoranthene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[a]pyrene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[g,h,i]perylene	**ND**	0.0072	EPA 8270E/SIM	4-24-20	4-24-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*58*	*21 - 107*				
Phenol-d6	*64*	*30 - 106*				
Nitrobenzene-d5	*53*	*28 - 109*				
2-Fluorobiphenyl	*64*	*37 - 107*				
2,4,6-Tribromophenol	*91*	*39 - 116*				
Terphenyl-d14	*77*	*41 - 113*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL
page 1 of 2

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0424S2					
n-Nitrosodimethylamine	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Pyridine	**ND**	0.33	EPA 8270E	4-24-20	4-24-20	
Phenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Aniline	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethyl)ether	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2-Chlorophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,3-Dichlorobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,4-Dichlorobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Benzyl alcohol	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
1,2-Dichlorobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2-Methylphenol (o-Cresol)	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroisopropyl)ether	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
n-Nitroso-di-n-propylamine	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Hexachloroethane	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Nitrobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Isophorone	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2-Nitrophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,4-Dimethylphenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
bis(2-Chloroethoxy)methane	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,4-Dichlorophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,2,4-Trichlorobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
4-Chloroaniline	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Hexachlorobutadiene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
4-Chloro-3-methylphenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Hexachlorocyclopentadiene	**ND**	0.046	EPA 8270E	4-24-20	4-24-20	
2,4,6-Trichlorophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,3-Dichloroaniline	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,4,5-Trichlorophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2-Chloronaphthalene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2-Nitroaniline	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,4-Dinitrobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Dimethylphthalate	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,3-Dinitrobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,6-Dinitrotoluene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,2-Dinitrobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
3-Nitroaniline	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0424S2					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
4-Nitrophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,4-Dinitrotoluene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Dibenzofuran	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Diethylphthalate	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
4-Chlorophenyl-phenylether	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
4-Nitroaniline	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
n-Nitrosodiphenylamine	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
1,2-Diphenylhydrazine	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
4-Bromophenyl-phenylether	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Hexachlorobenzene	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Pentachlorophenol	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Carbazole	**ND**	0.033	EPA 8270E	4-24-20	4-24-20	
Di-n-butylphthalate	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Butylbenzylphthalate	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Di-n-octylphthalate	**ND**	0.17	EPA 8270E	4-24-20	4-24-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	4-24-20	4-24-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*56*	*21 - 107*				
Phenol-d6	*66*	*30 - 106*				
Nitrobenzene-d5	*56*	*28 - 109*				
2-Fluorobiphenyl	*64*	*37 - 107*				
2,4,6-Tribromophenol	*78*	*39 - 116*				
Terphenyl-d14	*78*	*41 - 113*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-139-08										
	MS	MSD	MS	MSD		MS	MSD				
Phenol	**0.883**	**0.833**	1.33	1.33	ND	66	63	30 - 108	6	34	
2-Chlorophenol	**0.879**	**0.847**	1.33	1.33	ND	66	64	30 - 113	4	38	
1,4-Dichlorobenzene	**0.372**	**0.342**	0.667	0.667	ND	56	51	24 - 116	8	36	
n-Nitroso-di-n-propylamine	**0.423**	**0.393**	0.667	0.667	ND	63	59	34 - 112	7	34	
1,2,4-Trichlorobenzene	**0.442**	**0.413**	0.667	0.667	ND	66	62	34 - 115	7	37	
4-Chloro-3-methylphenol	**0.936**	**0.933**	1.33	1.33	ND	70	70	41 - 117	0	29	
Acenaphthene	**0.496**	**0.478**	0.667	0.667	ND	74	72	41 - 111	4	30	
4-Nitrophenol	**0.859**	**0.824**	1.33	1.33	ND	65	62	30 - 127	4	32	
2,4-Dinitrotoluene	**0.388**	**0.324**	0.667	0.667	ND	58	49	32 - 114	18	31	
Pentachlorophenol	**0.969**	**0.923**	1.33	1.33	ND	73	69	36 - 147	5	34	
Pyrene	**0.563**	**0.566**	0.667	0.667	ND	84	85	33 - 127	1	31	
Surrogate:											
2-Fluorophenol						*56*	*57*	*21 - 107*			
Phenol-d6						*65*	*62*	*30 - 106*			
Nitrobenzene-d5						*55*	*55*	*28 - 109*			
2-Fluorobiphenyl						*73*	*77*	*37 - 107*			
2,4,6-Tribromophenol						*75*	*76*	*39 - 116*			
Terphenyl-d14						*82*	*84*	*41 - 113*			

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

PCBs EPA 8082A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-34**					
Laboratory ID:	04-139-01					
Aroclor 1016	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.053	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*102*	*50-153*				
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
Aroclor 1016	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1221	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1232	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1242	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1248	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1254	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1260	**ND**	0.30	EPA 8082A	4-23-20	4-29-20	X
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*40*	*50-153*				Q
Client ID:	**UST-32**					
Laboratory ID:	04-139-03					
Aroclor 1016	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*50-153*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

PCBs EPA 8082A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-30**					
Laboratory ID:	04-139-04					
Aroclor 1016	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.061	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*105*	*50-153*				
Client ID:	**UST-29**					
Laboratory ID:	04-139-05					
Aroclor 1016	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.062	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*50-153*				
Client ID:	**UST-27**					
Laboratory ID:	04-139-06					
Aroclor 1016	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.064	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*101*	*50-153*				

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Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423W1					
Aroclor 1016	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1221	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1232	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1242	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1248	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1254	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Aroclor 1260	**ND**	0.050	EPA 8082A	4-23-20	4-29-20	X
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*115*	*50-153*				
Laboratory ID:	MB0423W1					
Aroclor 1016	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*112*	*50-153*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0423W1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.528**	**0.476**	0.500	0.500	N/A	**106**	**95**	70-129	10	12	
Surrogate:											
DCB						*114*	*93*	*50-153*			

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Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

PCBs EPA 8082A

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-21**					
Laboratory ID:	04-139-07					
Aroclor 1016	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*123*	*67-126*				

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Project: Star Forge UST Waste Designation

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423O2					
Aroclor 1016	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.99	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*120*	*67-126*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-139-07										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**10.2**	**9.80**	9.86	9.94	ND	**104**	**99**	50-124	5	15	
Surrogate:											
DCB						*124*	*122*	*67-126*			

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

PCBs EPA 8082A

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-31-Sand**					
Laboratory ID:	04-139-08					
Aroclor 1016	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.056	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*106*	*37-122*				
Client ID:	**UST-28-Sand**					
Laboratory ID:	04-139-09					
Aroclor 1016	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.059	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*37-122*				
Client ID:	**UST-26-Sand**					
Laboratory ID:	04-139-10					
Aroclor 1016	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.054	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*101*	*37-122*				

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0423S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	4-23-20	4-23-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*107*	*37-122*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	04-139-08										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.463**	**0.489**	0.500	0.500	ND	**93**	**98**	38-120	5	15	
Surrogate:											
DCB						*106*	*106*	*37-122*			

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-34**					
Laboratory ID:	04-139-01					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Barium	**68**	50	EPA 6010D	4-24-20	4-28-20	
Cadmium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Chromium	**17**	10	EPA 6010D	4-24-20	4-28-20	
Copper	**ND**	20	EPA 6010D	4-24-20	4-29-20	
Lead	**260**	100	EPA 6010D	4-24-20	4-28-20	
Mercury	**ND**	0.50	EPA 7470A	4-24-20	4-24-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Nickel	**89**	50	EPA 6010D	4-24-20	4-28-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Zinc	**1200**	50	EPA 6010D	4-24-20	4-28-20	
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Barium	**36000**	1000	EPA 6010D	4-24-20	4-28-20	
Cadmium	**39**	10	EPA 6010D	4-24-20	4-28-20	
Chromium	**1600**	10	EPA 6010D	4-24-20	4-28-20	
Copper	**3200**	20	EPA 6010D	4-24-20	4-28-20	
Lead	**6300**	100	EPA 6010D	4-24-20	4-28-20	
Mercury	**14**	0.50	EPA 7470A	4-24-20	4-24-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Nickel	**420**	50	EPA 6010D	4-24-20	4-28-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Zinc	**6900**	50	EPA 6010D	4-24-20	4-28-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D /7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-32**					
Laboratory ID:	04-139-03					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Barium	**ND**	50	EPA 6010D	4-24-20	4-28-20	
Cadmium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Chromium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Copper	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Lead	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Mercury	**ND**	0.50	EPA 7470A	4-24-20	4-24-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Nickel	**ND**	50	EPA 6010D	4-24-20	4-28-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Zinc	**ND**	50	EPA 6010D	4-24-20	4-28-20	
Client ID:	**UST-30**					
Laboratory ID:	04-139-04					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Barium	**ND**	50	EPA 6010D	4-24-20	4-28-20	
Cadmium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Chromium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Copper	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Lead	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Mercury	**ND**	0.50	EPA 7470A	4-24-20	4-24-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Nickel	**ND**	50	EPA 6010D	4-24-20	4-28-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Zinc	**ND**	50	EPA 6010D	4-24-20	4-28-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D /7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-29**					
Laboratory ID:	04-139-05					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Barium	**170**	50	EPA 6010D	4-24-20	4-28-20	
Cadmium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Chromium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Copper	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Lead	**100**	100	EPA 6010D	4-24-20	4-28-20	
Mercury	**ND**	0.50	EPA 7470A	4-24-20	4-24-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Nickel	**79**	50	EPA 6010D	4-24-20	4-28-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Zinc	**89**	50	EPA 6010D	4-24-20	4-28-20	
Client ID:	**UST-27**					
Laboratory ID:	04-139-06					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Barium	**60**	50	EPA 6010D	4-24-20	4-28-20	
Cadmium	**ND**	10	EPA 6010D	4-24-20	4-28-20	
Chromium	**17**	10	EPA 6010D	4-24-20	4-28-20	
Copper	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Lead	**280**	100	EPA 6010D	4-24-20	4-28-20	
Mercury	**ND**	0.50	EPA 7470A	4-24-20	4-24-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-28-20	
Nickel	**79**	50	EPA 6010D	4-24-20	4-28-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-28-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-28-20	
Zinc	**240**	50	EPA 6010D	4-24-20	4-28-20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D /7470A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0424WH1					
Arsenic	**ND**	200	EPA 6010D	4-24-20	4-27-20	
Barium	**ND**	50	EPA 6010D	4-24-20	4-27-20	
Cadmium	**ND**	10	EPA 6010D	4-24-20	4-27-20	
Chromium	**ND**	10	EPA 6010D	4-24-20	4-27-20	
Copper	**ND**	20	EPA 6010D	4-24-20	4-27-20	
Lead	**ND**	100	EPA 6010D	4-24-20	4-27-20	
Molybdenum	**ND**	100	EPA 6010D	4-24-20	4-27-20	
Nickel	**ND**	50	EPA 6010D	4-24-20	4-27-20	
Selenium	**ND**	200	EPA 6010D	4-24-20	4-27-20	
Silver	**ND**	20	EPA 6010D	4-24-20	4-27-20	
Zinc	**ND**	50	EPA 6010D	4-24-20	4-27-20	
Laboratory ID:	MB0424W1					
Mercury	**ND**	0.50	EPA 7470A	4-24-20	4-24-20	

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TOTAL METALS
EPA 6010D /7470A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-164-02										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Copper	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Molybdenum	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Nickel	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Laboratory ID:	04-139-03										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	04-164-02										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**1980**	**1940**	2000	2000	ND	**99**	**97**	75-125	2	20	
Barium	**2110**	**2090**	2000	2000	ND	**106**	**104**	75-125	1	20	
Cadmium	**964**	**953**	1000	1000	ND	**96**	**95**	75-125	1	20	
Chromium	**2040**	**2020**	2000	2000	ND	**102**	**101**	75-125	1	20	
Copper	**1040**	**1030**	1000	1000	ND	**104**	**103**	75-125	1	20	
Lead	**5050**	**4980**	5000	5000	ND	**101**	**100**	75-125	1	20	
Molybdenum	**1020**	**1010**	1000	1000	ND	**102**	**101**	75-125	1	20	
Nickel	**2000**	**1980**	2000	2000	ND	**100**	**99**	75-125	1	20	
Selenium	**1840**	**1850**	2000	2000	ND	**92**	**93**	75-125	1	20	
Silver	**463**	**463**	500	500	ND	**93**	**93**	75-125	0	20	
Zinc	**2070**	**2060**	2000	2000	ND	**104**	**103**	75-125	1	20	
Laboratory ID:	04-139-03										
Mercury	**11.6**	**11.8**	12.5	12.5	ND	**92**	**94**	75-125	2	20	

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Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-31-Sand**					
Laboratory ID:	04-139-08					
Arsenic	**ND**	11	EPA 6010D	4-24-20	4-24-20	
Barium	**85**	2.8	EPA 6010D	4-24-20	4-24-20	
Cadmium	**ND**	0.56	EPA 6010D	4-24-20	4-24-20	
Chromium	**10**	0.56	EPA 6010D	4-24-20	4-24-20	
Copper	**17**	1.1	EPA 6010D	4-24-20	4-24-20	
Lead	**ND**	5.6	EPA 6010D	4-24-20	4-24-20	
Mercury	**ND**	0.28	EPA 7471B	4-24-20	4-24-20	
Nickel	**13**	2.8	EPA 6010D	4-24-20	4-24-20	
Selenium	**ND**	11	EPA 6010D	4-24-20	4-24-20	
Silver	**ND**	1.1	EPA 6010D	4-24-20	4-24-20	
Zinc	**22**	2.8	EPA 6010D	4-24-20	4-24-20	
Client ID:	**UST-28-Sand**					
Laboratory ID:	04-139-09					
Arsenic	**ND**	12	EPA 6010D	4-24-20	4-24-20	
Barium	**74**	2.9	EPA 6010D	4-24-20	4-24-20	
Cadmium	**ND**	0.59	EPA 6010D	4-24-20	4-24-20	
Chromium	**14**	0.59	EPA 6010D	4-24-20	4-24-20	
Copper	**21**	1.2	EPA 6010D	4-24-20	4-24-20	
Lead	**ND**	5.9	EPA 6010D	4-24-20	4-24-20	
Mercury	**ND**	0.29	EPA 7471B	4-24-20	4-24-20	
Nickel	**18**	2.9	EPA 6010D	4-24-20	4-24-20	
Selenium	**ND**	12	EPA 6010D	4-24-20	4-24-20	
Silver	**ND**	1.2	EPA 6010D	4-24-20	4-24-20	
Zinc	**27**	2.9	EPA 6010D	4-24-20	4-24-20	

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Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-26-Sand**					
Laboratory ID:	04-139-10					
Arsenic	**ND**	11	EPA 6010D	4-24-20	4-24-20	
Barium	**43**	2.7	EPA 6010D	4-24-20	4-24-20	
Cadmium	**ND**	0.54	EPA 6010D	4-24-20	4-24-20	
Chromium	**11**	0.54	EPA 6010D	4-24-20	4-24-20	
Copper	**11**	1.1	EPA 6010D	4-24-20	4-24-20	
Lead	**ND**	5.4	EPA 6010D	4-24-20	4-24-20	
Mercury	**ND**	0.27	EPA 7471B	4-24-20	4-24-20	
Nickel	**15**	2.7	EPA 6010D	4-24-20	4-24-20	
Selenium	**ND**	11	EPA 6010D	4-24-20	4-24-20	
Silver	**ND**	1.1	EPA 6010D	4-24-20	4-24-20	
Zinc	**21**	2.7	EPA 6010D	4-24-20	4-24-20	

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Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0424SM1					
Arsenic	**ND**	10	EPA 6010D	4-24-20	4-24-20	
Barium	**ND**	2.5	EPA 6010D	4-24-20	4-24-20	
Cadmium	**ND**	0.50	EPA 6010D	4-24-20	4-24-20	
Chromium	**ND**	0.50	EPA 6010D	4-24-20	4-24-20	
Copper	**ND**	1.0	EPA 6010D	4-24-20	4-24-20	
Lead	**ND**	5.0	EPA 6010D	4-24-20	4-24-20	
Nickel	**ND**	2.5	EPA 6010D	4-24-20	4-24-20	
Selenium	**ND**	10	EPA 6010D	4-24-20	4-24-20	
Silver	**ND**	1.0	EPA 6010D	4-24-20	4-24-20	
Zinc	**ND**	2.5	EPA 6010D	4-24-20	4-24-20	
Laboratory ID:	MB0424S2					
Mercury	**ND**	0.25	EPA 7471B	4-24-20	4-24-20	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-161-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**50.1**	**46.2**	NA	NA		NA		NA	8	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**25.4**	**27.0**	NA	NA		NA		NA	6	20	
Copper	**21.8**	**21.4**	NA	NA		NA		NA	2	20	
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Nickel	**35.5**	**34.0**	NA	NA		NA		NA	4	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**36.3**	**38.0**	NA	NA		NA		NA	5	20	
Laboratory ID:	04-161-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	04-161-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**87.0**	**88.1**	100	100	ND	**87**	**88**	75-125	1	20	
Barium	**137**	**133**	100	100	50.1	**87**	**83**	75-125	3	20	
Cadmium	**48.1**	**47.6**	50.0	50.0	ND	**96**	**95**	75-125	1	20	
Chromium	**115**	**114**	100	100	25.4	**90**	**89**	75-125	1	20	
Copper	**66.2**	**68.4**	50.0	50.0	21.8	**89**	**93**	75-125	3	20	
Lead	**218**	**218**	250	250	ND	**87**	**87**	75-125	0	20	
Nickel	**120**	**120**	100	100	35.5	**84**	**84**	75-125	0	20	
Selenium	**87.6**	**90.7**	100	100	ND	**88**	**91**	75-125	3	20	
Silver	**20.6**	**20.5**	25.0	25.0	ND	**82**	**82**	75-125	1	20	
Zinc	**125**	**127**	100	100	36.3	**89**	**91**	75-125	1	20	
Laboratory ID:	04-161-01										
Mercury	**0.554**	**0.551**	0.500	0.500	0.0327	**104**	**104**	80-120	1	20	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139
Project: Star Forge UST Waste Designation

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
UST-31-Sand	04-139-08	**11**	4-23-20
UST-28-Sand	04-139-09	**15**	4-23-20
UST-26-Sand	04-139-10	**8**	4-23-20

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn, Mo	Total MTCA Metals + Cu, Ni, Zn RCRA	TCLP Metals	HEM (oil and grease) 1664A					% Moisture
1	UST-34	4/21/2020	1150	Water	8					X			X		X				X								
2	UST-33	↓	1210	↓	↓					↓			↓		↓				↓								
3	UST-32		1230																								
4	UST-30		1250																								
5	UST-29		1320																								
6	UST-27	↓	1400	↓	↓					↓			↓		↓				↓								
7	UST-21	↓	1530	Product ~~fuel~~	2					X					X												
8	UST-31-sand	4/22/2020	0850	soil	5					X			X		X					X							X
9	UST-28-sand	↓	0920	↓	↓					↓			↓		↓					↓							X
10	UST-26-sand	↓	0955	↓	↓					↓			↓		↓					↓							X

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to davehill@dhenviro.com
nathan.moxley@dhenviro.com

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: UST Star Forge Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
11	N. Tanks Slag	4/22/20	1030	Soil	5
12	S. Tanks Slag	↓	1100	↓	↓

Lab ID	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Archive				% Moisture
11																		X				
12																		X				

	Signature	Company	Date	Time
Relinquished		DH Environmental	4/22/2020	1230
Received	Karen Lisecki	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 5, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge UST Waste Designation
Laboratory Reference No. 2004-139B

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 5, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139B
Project: Star Forge UST Waste Designation

Case Narrative

Samples were collected on April 21 and 22, 2020 and received by the laboratory on April 22, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 5, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139B
Project: Star Forge UST Waste Designation

TCLP LEAD
EPA 1311/6010D

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST-33**					
Laboratory ID:	04-139-02					
Lead	**ND**	0.20	EPA 6010D	5-5-20	5-5-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 5, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139B
Project: Star Forge UST Waste Designation

TCLP LEAD
EPA 1311/6010D
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0505TM1					
Lead	**ND**	0.20	EPA 6010D	5-5-20	5-5-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-139-02										
	ORIG	DUP									
Lead	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	04-139-02										
	MS	MSD	MS	MSD		MS	MSD				
Lead	**9.42**	**9.51**	10.0	10.0	ND	**94**	**95**	75-125	1	20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn, Mo	Total MTCA Metals + Cu, Ni, Zn RCRA	TCLP Metals LEAD ONLY	HEM (oil and grease) 1664A					% Moisture
1	UST-34	4/21/2020	1150	Water	8					X			X		X				X								
2	UST-33	↓	1210	↓	↓					↓			↓		↓				↓		⊗						
3	UST-32		1230																								
4	UST-30		1250																								
5	UST-29		1320																								
6	UST-27	↓	1400	↓	↓					↓			↓		↓				↓								
7	UST-21	↓	1530	Product ~~fuel~~	2					X					X												
8	UST-31-sand	4/22/2020	0850	soil	5					X			X		X					X							X
9	UST-28-sand	↓	0920	↓	↓					↓			↓		↓					↓							X
10	UST-26-sand	↓	0955	↓	↓					↓			↓		↓					↓							X

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to dhillhill@dhenviro.com
nathan.moxley@dhenviro.com
⊗ Added 5/1/2020. DB (2 day TAT)

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley

Turnaround Request (in working days)

(Check One)

☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Archive				% Moisture
11	N. Tanks Slag	4/22/20	1030	Soil	5																		X				
12	S. Tanks Slag	↓	1100	↓	↓																		X				

	Signature	Company	Date	Time
Relinquished		DH Environmental	4/22/2020	1230
Received		OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 22, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge UST Waste Designation
Laboratory Reference No. 2004-139C

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

Case Narrative

Samples were collected on April 21 and 22, 2020 and received by the laboratory on April 22, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

The client requested the analysis of samples N. Tanks Slag, and S. Tanks Slag after the holding time had expired.

Semivolatiles EPA 8270E/SIM Analysis

The client requested the analysis of samples N. Tanks Slag, and S. Tanks Slag after the holding time had expired.

Samples N. Tanks Slag, and S. Tanks Slag each had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Total Metals EPA 6010D/7471B Analysis

The duplicate RPD for Chromuim is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

The Matrix Spike/ Matrix Spike Duplicate recoveries for Barium and Chromium are outside control limits due to matrix inhomogeneity . The samples were re-extracted and re-analyzed with similar results. The Spike Blank recovery was 98.3% for Barium and 100% for Chromium.

The Matrix Spike/Matrix Spike Duplicate RPD for Chromium is outside control limits due to matrix inhomogeneity. The samples were re-extracted and re-analyzed with similar results.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
Dichlorodifluoromethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Chloromethane	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Vinyl Chloride	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Bromomethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Chloroethane	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Trichlorofluoromethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloroethene	ND	0.00055	EPA 8260D	5-15-20	5-15-20	
Acetone	ND	0.0042	EPA 8260D	5-15-20	5-15-20	
Iodomethane	ND	0.0038	EPA 8260D	5-15-20	5-15-20	
Carbon Disulfide	ND	0.00093	EPA 8260D	5-15-20	5-15-20	
Methylene Chloride	ND	0.0030	EPA 8260D	5-15-20	5-15-20	
(trans) 1,2-Dichloroethene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Methyl t-Butyl Ether	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloroethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Vinyl Acetate	ND	0.0028	EPA 8260D	5-15-20	5-15-20	
2,2-Dichloropropane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
(cis) 1,2-Dichloroethene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
2-Butanone	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Bromochloromethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Chloroform	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,1,1-Trichloroethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Carbon Tetrachloride	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloropropene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Benzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,2-Dichloroethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Trichloroethene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,2-Dichloropropane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Dibromomethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Bromodichloromethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
2-Chloroethyl Vinyl Ether	ND	0.0033	EPA 8260D	5-15-20	5-15-20	
(cis) 1,3-Dichloropropene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Methyl Isobutyl Ketone	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Toluene	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
(trans) 1,3-Dichloropropene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
1,1,2-Trichloroethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Tetrachloroethene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,3-Dichloropropane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
2-Hexanone	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Dibromochloromethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,2-Dibromoethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Chlorobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,1,1,2-Tetrachloroethane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Ethylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
m,p-Xylene	ND	0.00085	EPA 8260D	5-15-20	5-15-20	
o-Xylene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Styrene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Bromoform	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Isopropylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Bromobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,1,2,2-Tetrachloroethane	ND	0.00055	EPA 8260D	5-15-20	5-15-20	
1,2,3-Trichloropropane	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
n-Propylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
2-Chlorotoluene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
4-Chlorotoluene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,3,5-Trimethylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
tert-Butylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,2,4-Trimethylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
sec-Butylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,3-Dichlorobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
p-Isopropyltoluene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,4-Dichlorobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,2-Dichlorobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
n-Butylbenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
1,2-Dibromo-3-chloropropane	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
1,2,4-Trichlorobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Hexachlorobutadiene	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
Naphthalene	ND	0.0021	EPA 8260D	5-15-20	5-15-20	
1,2,3-Trichlorobenzene	ND	0.00042	EPA 8260D	5-15-20	5-15-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*89*	*71-130*				

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
Dichlorodifluoromethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Chloromethane	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Vinyl Chloride	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Bromomethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Chloroethane	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Trichlorofluoromethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloroethene	ND	0.00067	EPA 8260D	5-15-20	5-15-20	
Acetone	ND	0.0051	EPA 8260D	5-15-20	5-15-20	
Iodomethane	ND	0.0046	EPA 8260D	5-15-20	5-15-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-15-20	5-15-20	
Methylene Chloride	ND	0.0036	EPA 8260D	5-15-20	5-15-20	
(trans) 1,2-Dichloroethene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Methyl t-Butyl Ether	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloroethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Vinyl Acetate	ND	0.0034	EPA 8260D	5-15-20	5-15-20	
2,2-Dichloropropane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
(cis) 1,2-Dichloroethene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
2-Butanone	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Bromochloromethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Chloroform	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,1,1-Trichloroethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Carbon Tetrachloride	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloropropene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Benzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,2-Dichloroethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Trichloroethene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,2-Dichloropropane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Dibromomethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Bromodichloromethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
2-Chloroethyl Vinyl Ether	ND	0.0039	EPA 8260D	5-15-20	5-15-20	
(cis) 1,3-Dichloropropene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Methyl Isobutyl Ketone	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Toluene	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
(trans) 1,3-Dichloropropene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
1,1,2-Trichloroethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Tetrachloroethene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,3-Dichloropropane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
2-Hexanone	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Dibromochloromethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,2-Dibromoethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Chlorobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,1,1,2-Tetrachloroethane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Ethylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
m,p-Xylene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
o-Xylene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Styrene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Bromoform	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Isopropylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Bromobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,1,2,2-Tetrachloroethane	ND	0.00067	EPA 8260D	5-15-20	5-15-20	
1,2,3-Trichloropropane	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
n-Propylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
2-Chlorotoluene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
4-Chlorotoluene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,3,5-Trimethylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
tert-Butylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,2,4-Trimethylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
sec-Butylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,3-Dichlorobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
p-Isopropyltoluene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,4-Dichlorobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,2-Dichlorobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
n-Butylbenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
1,2-Dibromo-3-chloropropane	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
1,2,4-Trichlorobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Hexachlorobutadiene	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
Naphthalene	ND	0.0026	EPA 8260D	5-15-20	5-15-20	
1,2,3-Trichlorobenzene	ND	0.00051	EPA 8260D	5-15-20	5-15-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*95*	*74-131*				
Toluene-d8	*94*	*78-128*				
4-Bromofluorobenzene	*92*	*71-130*				

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
Page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0515S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Chloromethane	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Bromomethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Chloroethane	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	5-15-20	5-15-20	
Acetone	ND	0.010	EPA 8260D	5-15-20	5-15-20	
Iodomethane	ND	0.0089	EPA 8260D	5-15-20	5-15-20	
Carbon Disulfide	ND	0.0022	EPA 8260D	5-15-20	5-15-20	
Methylene Chloride	ND	0.0071	EPA 8260D	5-15-20	5-15-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Vinyl Acetate	ND	0.0067	EPA 8260D	5-15-20	5-15-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
2-Butanone	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Bromochloromethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Chloroform	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Benzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Trichloroethene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Dibromomethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
2-Chloroethyl Vinyl Ether	ND	0.0077	EPA 8260D	5-15-20	5-15-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Toluene	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0515S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
2-Hexanone	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Chlorobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Ethylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
m,p-Xylene	ND	0.0020	EPA 8260D	5-15-20	5-15-20	
o-Xylene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Styrene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Bromoform	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Bromobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-15-20	5-15-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
Naphthalene	ND	0.0050	EPA 8260D	5-15-20	5-15-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-15-20	5-15-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*92*	*71-130*				

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0515S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0393**	**0.0393**	0.0500	0.0500	79	79	55-126	0	18	
Benzene	**0.0439**	**0.0439**	0.0500	0.0500	88	88	65-121	0	16	
Trichloroethene	**0.0517**	**0.0518**	0.0500	0.0500	103	104	74-126	0	16	
Toluene	**0.0496**	**0.0496**	0.0500	0.0500	99	99	71-121	0	15	
Chlorobenzene	**0.0502**	**0.0507**	0.0500	0.0500	100	101	72-123	1	14	
Surrogate:										
Dibromofluoromethane					*93*	*91*	*74-131*			
Toluene-d8					*98*	*97*	*78-128*			
4-Bromofluorobenzene					*95*	*96*	*71-130*			

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
Page 1 of 2

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
n-Nitrosodimethylamine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Pyridine	**ND**	0.46	EPA 8270E	5-15-20	5-15-20	
Phenol	**0.081**	0.034	EPA 8270E	5-15-20	5-15-20	
Aniline	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroethyl)ether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Chlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,3-Dichlorobenzene	**0.053**	0.034	EPA 8270E	5-15-20	5-15-20	
1,4-Dichlorobenzene	**0.040**	0.034	EPA 8270E	5-15-20	5-15-20	
Benzyl alcohol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
1,2-Dichlorobenzene	**0.044**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Methylphenol (o-Cresol)	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroisopropyl)ether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
n-Nitroso-di-n-propylamine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Hexachloroethane	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Nitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Isophorone	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Nitrophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4-Dimethylphenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroethoxy)methane	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4-Dichlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,2,4-Trichlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Naphthalene	**0.051**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Chloroaniline	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Hexachlorobutadiene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Chloro-3-methylphenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Methylnaphthalene	**0.024**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
1-Methylnaphthalene	**0.018**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Hexachlorocyclopentadiene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4,6-Trichlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,3-Dichloroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4,5-Trichlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Chloronaphthalene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Nitroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,4-Dinitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Dimethylphthalate	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,3-Dinitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,6-Dinitrotoluene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,2-Dinitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
3-Nitroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
4-Nitrophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4-Dinitrotoluene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Dibenzofuran	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Diethylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
4-Chlorophenyl-phenylether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Nitroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
n-Nitrosodiphenylamine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,2-Diphenylhydrazine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Bromophenyl-phenylether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Hexachlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Pentachlorophenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Phenanthrene	**0.028**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Carbazole	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Di-n-butylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Fluoranthene	**0.036**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Pyrene	**0.026**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Butylbenzylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Benzo[a]anthracene	**0.010**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Chrysene	**0.031**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Di-n-octylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Benzo[b]fluoranthene	**0.030**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo(j,k)fluoranthene	**0.0085**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo[a]pyrene	**0.014**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Indeno[1,2,3-cd]pyrene	**0.015**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo[g,h,i]perylene	**0.016**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*48*	*22 - 109*				
Phenol-d6	*26*	*36 - 110*				Q
Nitrobenzene-d5	*45*	*31 - 109*				
2-Fluorobiphenyl	*74*	*45 - 107*				
2,4,6-Tribromophenol	*51*	*43 - 124*				
Terphenyl-d14	*52*	*52 - 118*				

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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
n-Nitrosodimethylamine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Pyridine	**ND**	0.46	EPA 8270E	5-15-20	5-15-20	
Phenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Aniline	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroethyl)ether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Chlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,3-Dichlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,4-Dichlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Benzyl alcohol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
1,2-Dichlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Methylphenol (o-Cresol)	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroisopropyl)ether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
n-Nitroso-di-n-propylamine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Hexachloroethane	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Nitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Isophorone	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Nitrophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4-Dimethylphenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroethoxy)methane	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4-Dichlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,2,4-Trichlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Naphthalene	**0.017**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
4-Chloroaniline	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Hexachlorobutadiene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Chloro-3-methylphenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Methylnaphthalene	**0.0091**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
1-Methylnaphthalene	**ND**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Hexachlorocyclopentadiene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4,6-Trichlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,3-Dichloroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4,5-Trichlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Chloronaphthalene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2-Nitroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,4-Dinitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Dimethylphthalate	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,3-Dinitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,6-Dinitrotoluene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,2-Dinitrobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Acenaphthylene	**ND**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
3-Nitroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	

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SEMIVOLATILE ORGANICS EPA 8270E/SIM
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Acenaphthene	**ND**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
4-Nitrophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,4-Dinitrotoluene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Dibenzofuran	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Diethylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
4-Chlorophenyl-phenylether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Nitroaniline	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Fluorene	**ND**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
n-Nitrosodiphenylamine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
1,2-Diphenylhydrazine	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
4-Bromophenyl-phenylether	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Hexachlorobenzene	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Pentachlorophenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Phenanthrene	**0.029**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Anthracene	**ND**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Carbazole	**ND**	0.034	EPA 8270E	5-15-20	5-15-20	
Di-n-butylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Fluoranthene	**0.034**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Pyrene	**0.027**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Butylbenzylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Benzo[a]anthracene	**0.010**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Chrysene	**0.024**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Di-n-octylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Benzo[b]fluoranthene	**0.025**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo(j,k)fluoranthene	**0.0075**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo[a]pyrene	**0.011**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Indeno[1,2,3-cd]pyrene	**0.013**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Dibenz[a,h]anthracene	**ND**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo[g,h,i]perylene	**0.014**	0.0068	EPA 8270E/SIM	5-15-20	5-15-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*32*	*22 - 109*				
Phenol-d6	*32*	*36 - 110*				Q
Nitrobenzene-d5	*43*	*31 - 109*				
2-Fluorobiphenyl	*63*	*45 - 107*				
2,4,6-Tribromophenol	*47*	*43 - 124*				
Terphenyl-d14	*65*	*52 - 118*				

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QUALITY CONTROL
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Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0515S1					
n-Nitrosodimethylamine	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Pyridine	**ND**	0.45	EPA 8270E	5-15-20	5-15-20	
Phenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Aniline	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroethyl)ether	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2-Chlorophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,3-Dichlorobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,4-Dichlorobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Benzyl alcohol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
1,2-Dichlorobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2-Methylphenol (o-Cresol)	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroisopropyl)ether	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
(3+4)-Methylphenol (m,p-Cresol)	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
n-Nitroso-di-n-propylamine	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Hexachloroethane	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Nitrobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Isophorone	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2-Nitrophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,4-Dimethylphenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
bis(2-Chloroethoxy)methane	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,4-Dichlorophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,2,4-Trichlorobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
4-Chloroaniline	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Hexachlorobutadiene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
4-Chloro-3-methylphenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Hexachlorocyclopentadiene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,4,6-Trichlorophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,3-Dichloroaniline	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,4,5-Trichlorophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2-Chloronaphthalene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2-Nitroaniline	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,4-Dinitrobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Dimethylphthalate	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,3-Dinitrobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,6-Dinitrotoluene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,2-Dinitrobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
3-Nitroaniline	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	

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QUALITY CONTROL
Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0515S1					
2,4-Dinitrophenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
4-Nitrophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,4-Dinitrotoluene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Dibenzofuran	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,3,5,6-Tetrachlorophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
2,3,4,6-Tetrachlorophenol	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Diethylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
4-Chlorophenyl-phenylether	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
4-Nitroaniline	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
4,6-Dinitro-2-methylphenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
n-Nitrosodiphenylamine	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
1,2-Diphenylhydrazine	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
4-Bromophenyl-phenylether	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Hexachlorobenzene	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Pentachlorophenol	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Carbazole	**ND**	0.033	EPA 8270E	5-15-20	5-15-20	
Di-n-butylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Butylbenzylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
bis-2-Ethylhexyladipate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
3,3'-Dichlorobenzidine	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
bis(2-Ethylhexyl)phthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Di-n-octylphthalate	**ND**	0.17	EPA 8270E	5-15-20	5-15-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Indeno[1,2,3-cd]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-15-20	5-15-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorophenol	*82*	*22 - 109*				
Phenol-d6	*89*	*36 - 110*				
Nitrobenzene-d5	*81*	*31 - 109*				
2-Fluorobiphenyl	*84*	*45 - 107*				
2,4,6-Tribromophenol	*89*	*43 - 124*				
Terphenyl-d14	*83*	*52 - 118*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

SEMIVOLATILE ORGANICS EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0515S1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	**1.11**	**1.05**	1.33	1.33	83	79	47 - 104	6	30	
2-Chlorophenol	**1.18**	**1.13**	1.33	1.33	89	85	45 - 108	4	31	
1,4-Dichlorobenzene	**0.588**	**0.556**	0.667	0.667	88	83	41 - 105	6	32	
n-Nitroso-di-n-propylamine	**0.588**	**0.561**	0.667	0.667	88	84	47 - 103	5	28	
1,2,4-Trichlorobenzene	**0.588**	**0.556**	0.667	0.667	88	83	42 - 111	6	32	
4-Chloro-3-methylphenol	**1.21**	**1.16**	1.33	1.33	91	87	61 - 108	4	25	
Acenaphthene	**0.572**	**0.545**	0.667	0.667	86	82	54 - 102	5	23	
4-Nitrophenol	**1.13**	**1.10**	1.33	1.33	85	83	53 - 122	3	24	
2,4-Dinitrotoluene	**0.542**	**0.537**	0.667	0.667	81	81	57 - 107	1	22	
Pentachlorophenol	**0.636**	**0.654**	1.33	1.33	48	49	44 - 132	3	23	
Pyrene	**0.589**	**0.599**	0.667	0.667	88	90	58 - 111	2	21	
Surrogate:										
2-Fluorophenol					*86*	*81*	*22 - 109*			
Phenol-d6					*100*	*94*	*36 - 110*			
Nitrobenzene-d5					*88*	*83*	*31 - 109*			
2-Fluorobiphenyl					*90*	*88*	*45 - 107*			
2,4,6-Tribromophenol					*98*	*94*	*43 - 124*			
Terphenyl-d14					*90*	*92*	*52 - 118*			

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

PCBs EPA 8082A

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1254	**0.10**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*122*	*46-125*				
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
Aroclor 1016	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	5-15-20	5-19-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*121*	*46-125*				

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0515S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	5-15-20	5-18-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*104*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-069-03										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.522**	**0.528**	0.500	0.500	ND	**104**	**106**	43-125	1	15	
Surrogate:											
DCB						*110*	*115*	*46-125*			

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
Arsenic	**79**	10	EPA 6010D	5-18-20	5-18-20	
Barium	**31**	2.5	EPA 6010D	5-18-20	5-18-20	
Cadmium	**ND**	0.50	EPA 6010D	5-18-20	5-18-20	
Chromium	**3900**	10	EPA 6010D	5-18-20	5-18-20	
Copper	**1200**	20	EPA 6010D	5-18-20	5-18-20	
Lead	**70**	5.0	EPA 6010D	5-18-20	5-18-20	
Mercury	**ND**	0.25	EPA 7471B	5-15-20	5-15-20	
Nickel	**7900**	50	EPA 6010D	5-18-20	5-18-20	
Selenium	**ND**	10	EPA 6010D	5-18-20	5-18-20	
Silver	**ND**	1.0	EPA 6010D	5-18-20	5-18-20	
Zinc	**170**	2.5	EPA 6010D	5-18-20	5-18-20	
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
Arsenic	**100**	10	EPA 6010D	5-18-20	5-18-20	
Barium	**19**	2.5	EPA 6010D	5-18-20	5-18-20	
Cadmium	**ND**	0.51	EPA 6010D	5-18-20	5-18-20	
Chromium	**3900**	10	EPA 6010D	5-18-20	5-18-20	
Copper	**1600**	20	EPA 6010D	5-18-20	5-18-20	
Lead	**64**	5.1	EPA 6010D	5-18-20	5-18-20	
Mercury	**ND**	0.25	EPA 7471B	5-15-20	5-15-20	
Nickel	**4900**	51	EPA 6010D	5-18-20	5-18-20	
Selenium	**ND**	10	EPA 6010D	5-18-20	5-18-20	
Silver	**ND**	1.0	EPA 6010D	5-18-20	5-18-20	
Zinc	**96**	2.5	EPA 6010D	5-18-20	5-18-20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0518SH1					
Arsenic	**ND**	10	EPA 6010D	5-18-20	5-18-20	
Barium	**ND**	2.5	EPA 6010D	5-18-20	5-18-20	
Cadmium	**ND**	0.50	EPA 6010D	5-18-20	5-18-20	
Chromium	**ND**	0.50	EPA 6010D	5-18-20	5-18-20	
Copper	**ND**	1.0	EPA 6010D	5-18-20	5-18-20	
Lead	**ND**	5.0	EPA 6010D	5-18-20	5-18-20	
Nickel	**ND**	2.5	EPA 6010D	5-18-20	5-18-20	
Selenium	**ND**	10	EPA 6010D	5-18-20	5-18-20	
Silver	**ND**	1.0	EPA 6010D	5-18-20	5-18-20	
Zinc	**ND**	2.5	EPA 6010D	5-18-20	5-18-20	
Laboratory ID:	MB0515S1					
Mercury	**ND**	0.25	EPA 7471B	5-15-20	5-15-20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-115-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**81.9**	**73.3**	NA	NA		NA		NA	11	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**207**	**153**	NA	NA		NA		NA	30	20	K
Copper	**39.7**	**40.9**	NA	NA		NA		NA	3	20	
Lead	**ND**	**6.45**	NA	NA		NA		NA	NA	20	
Nickel	**23.0**	**22.9**	NA	NA		NA		NA	0	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**49.7**	**48.0**	NA	NA		NA		NA	3	20	
Laboratory ID:	04-139-11										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-115-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**94.5**	**92.6**	100	100	ND	**95**	**93**	75-125	2	20	
Barium	**152**	**148**	100	100	81.9	**70**	**66**	75-125	2	20	V
Cadmium	**47.5**	**47.7**	50.0	50.0	ND	**95**	**95**	75-125	0	20	
Chromium	**313**	**222**	100	100	207	**106**	**15**	75-125	34	20	V,W
Copper	**87.2**	**81.4**	50.0	50.0	39.7	**95**	**83**	75-125	7	20	
Lead	**227**	**227**	250	250	ND	**91**	**91**	75-125	0	20	
Nickel	**112**	**110**	100	100	23.0	**89**	**87**	75-125	2	20	
Selenium	**93.4**	**93.0**	100	100	ND	**93**	**93**	75-125	0	20	
Silver	**22.4**	**22.4**	25.0	25.0	ND	**90**	**89**	75-125	0	20	
Zinc	**145**	**138**	100	100	49.7	**95**	**89**	75-125	4	20	
Laboratory ID:	04-139-11										
Mercury	**0.513**	**0.444**	0.500	0.500	0.0214	**98**	**85**	80-120	14	20	

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Date of Report: May 22, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139C
Project: Star Forge UST Waste Designation

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
N. Tanks Slag	04-139-11	**1**	5-15-20
S. Tanks Slag	04-139-12	**1**	5-15-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn, Mo	Total MTCA Metals + Cu, Ni, Zn RCRA	TCLP Metals LEAD ONLY	HEM (oil and grease) 1664A					% Moisture
1	UST-34	4/21/2020	1150	Water	8					X			X		X				X								
2	UST-33	↓	1210	↓	↓					↓			↓		↓				↓		⊗						
3	UST-32		1230																								
4	UST-30		1250																								
5	UST-29		1320																								
6	UST-27	↓	1400	↓	↓					↓			↓		↓				↓								
7	UST-21	↓	1530	Product ~~fuel~~	2					X					X												
8	UST-31-sand	4/22/2020	0850	soil	5					X			X		X					X							X
9	UST-28-sand	↓	0920	↓	↓					↓			↓		↓					↓							X
10	UST-26-sand	↓	0955	↓	↓					↓			↓		↓					↓							X

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to davehill@dhenviro.com
nathan.moxley@dhenviro.com
⊗ Added 5/1/2020 - DB (2 day TAT)
○ Added 5/15/20 ~~BC~~ 5 day TA

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: UST Star Forge Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Archive				% Moisture
11	N. Tanks Slag	4/22/20	1030	Soil	5					O			O		O				O			X					O
12	S. Tanks Slag	↓	1100	↓	↓					O			O		O				O			X					O

	Signature	Company	Date	Time
Relinquished		DH Environmental	4/22/2020	1230
Received		OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 28, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge UST Waste Designation
Laboratory Reference No. 2004-139D

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 28, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139D
Project: Star Forge UST Waste Designation

Case Narrative

Samples were collected on April 21 and 22, 2020 and received by the laboratory on April 22, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 28, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139D
Project: Star Forge UST Waste Designation

TCLP METALS
EPA 1311/6010D

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**N. Tanks Slag**					
Laboratory ID:	04-139-11					
Chromium	**0.023**	0.020	EPA 6010D	5-27-20	5-27-20	
Client ID:	**S. Tanks Slag**					
Laboratory ID:	04-139-12					
Arsenic	**ND**	0.40	EPA 6010D	5-27-20	5-27-20	
Chromium	**ND**	0.020	EPA 6010D	5-27-20	5-27-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 28, 2020
Samples Submitted: April 22, 2020
Laboratory Reference: 2004-139D
Project: Star Forge UST Waste Designation

TCLP METALS
EPA 1311/6010D
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0527TM1					
Arsenic	**ND**	0.40	EPA 6010D	5-27-20	5-27-20	
Chromium	**ND**	0.020	EPA 6010D	5-27-20	5-27-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-174-01										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-174-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.65**	**3.60**	4.00	4.00	ND	**91**	**90**	75-125	1	20	
Chromium	**3.98**	**3.98**	4.00	4.00	ND	**99**	**99**	75-125	0	20	

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn, Mo	Total MTCA Metals + Cu, Ni, Zn RCRA	TCLP Metals LEAD ONLY	HEM (oil and grease) 1664A					% Moisture
1	UST-34	4/21/2020	1150	Water	8					X			X		X				X								
2	UST-33	↓	1210	↓	↓					↓			↓		↓				↓		X						
3	UST-32		1230																								
4	UST-30		1250																								
5	UST-29		1320																								
6	UST-27	↓	1400	↓	↓					↓			↓		↓				↓								
7	UST-21	↓	1530	Product ~~fuel~~	2					X					X												
8	UST-31-sand	4/22/2020	0850	soil	5					X			X		X					X							X
9	UST-28-sand	↓	0920	↓	↓					↓			↓		↓					↓							X
10	UST-26-sand	↓	0955	↓	↓					↓			↓		↓					↓							X

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data to davehill@dhenviro.com
nathan.moxley@dhenviro.com

⊗ Added 5/1/2020. DB (2 day TAT)

○ Added 5/15/20 ~~DB~~ 5 day TA ● Added 5/22 ~~DB~~ 3 day TA

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP ~~Metals~~ Cr	~~HEM (oil and grease) 1664~~ TCLP Cr, As	Archive				% Moisture
11	N. Tanks Slag	4/22/20	1030	Soil	5					O			O		O				O		●	~~X~~	X				O
12	S. Tanks Slag	↓	1100	↓	↓					O			O		O				O			●	X				O

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 8, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge UST Waste Designation
Laboratory Reference No. 2004-139E

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on April 22, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Rainier ENVIRONMENTAL

Dangerous Waste Characterization

Sample ID: N. Tanks Slag; S. Tanks Slag

Report date: June 8, 2020

Submitted to:

OnSite Environmental
14648 NE 95th Street
Redmond, WA 98052

Rainier Environmental
5013 Pacific Hwy East
Suite 20
Tacoma, WA 98424

1.0 INTRODUCTION

A dangerous waste characterization using the test organism *Oncorhynchus mykiss* (rainbow trout) was conducted on two samples submitted by Onsite Environmental to Rainier Environmental. Testing was conducted following the Washington State Department of Ecology Publication 80-12.

2.0 METHODS

The samples, identified as N. Tanks Slag and S. Tanks Slag were received in the laboratory on June 2, 2020. Upon arrival at the laboratory the samples were inspected and contents verified against information provided on the chain-of-custody form. The samples were stored at 4°C in the dark until use. The test procedure is outlined in Table 1.

Table 1. Summary of Dangerous Waste Characterization Test Conditions

Parameter	Standard Fish Toxicity Test
Test numbers	2006-001; 2006-002
Sample ID's	N. Tanks Slag; S. Tanks Slag
Test initiation date; time	6/4/2020; 0900h
Test termination date; time	6/8/2020; 0945h
Endpoint	Mortality at 96-hours
Test chamber	7.5 L Plastic tank
Test temperature	12 ± 1°C
Dilution water	Moderately hard synthetic water
Test solution volume	6 L
Test concentrations (mg/L)	100, 10, 0
Number of organisms/chamber	10
Number of replicates	3
Test organism	*Oncorhynchus mykiss* (rainbow trout)
Feeding	No feeding during test
Photoperiod	16 hours light/ 8 hours dark
Extraction	Rotary agitation (30 +/- 2 rpm) for 18 hours
Reference Toxicant	Copper sulfate
Deviations	None

The test organisms used in the test are outlined in Table 2. The samples were tested using fish received on April 22, 2020.

Table 2. Test organisms (*Oncorhynchus mykiss*)

Test organism age	46 days post swim-up (hatch date 4/1/2020)
Mean weight	0.33 g
Mean length	33 mm
Ratio of longest to shortest	1.2
Loading	0.55 g/L
Test organism source	Trout Lodge; Sumner, WA

3.0 RESULTS

A summary of results for the dangerous waste characterization conducted on samples N. Tanks Slag and S. Tanks Slag are contained in Table 3. There was no mortality during the tests. Based on these results, the samples do not designate as either a dangerous or extremely hazardous waste. Copies of the laboratory bench sheets, statistical summaries of reference toxicant tests, and chain-of-custody form are provided in Appendices A through C.

Table 3. Summary of Results

Sample ID	Concentration (mg/L)	Survival (# fish, N=30)	Percent Mortality	Dangerous Waste Designation
Control	0	30	0	NA
N. Tanks Slag	10	30	0	None
	100	30	0	
S. Tanks Slag	10	30	0	None
	100	30	0	

4.0 QUALITY ASSURANCE

The most recently completed reference toxicant test was initiated June 4, 2020. The LC_{50} of 138 µg/L copper fell within the acceptable range of mean ± two standard deviations of historical test results indicating that the test organisms were of an appropriate degree of sensitivity. The coefficient of variation (CV) for the last 20 tests was 29.8 percent, which is considered excellent by the Biomonitoring Science Advisory Board.

5.0 REFERENCES

WDOE. 2016. Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. Washington State Department of Ecology. Water Quality Program. Publication number: WQ-R-95-80, Revised June 2016.

WDOE. 2009. Biological Testing Methods 80-12 for the Designation of Dangerous Waste. Washington State Department of Ecology. Hazardous Waste and Toxics Reduction Program. Publication number: 80-12, Revised June 2009.

Appendix A
Oncorhynchus mykiss Dangerous Waste Toxicity Test
Raw Bench Sheets

Dangerous Waste Toxicity Test

Client: ONSITE ENVIRONMENTAL INC.
Sample ID: N. TANKS SLAG, S. TANKS SLAG
Test #: 2006-001; 2006-002
Log In #: T20-152, T20-153

Start Date & Time: 6/4/2020 0900
End Date & Time: 6/9/2020 0945
Test Organism: *Oncorhynchus mykiss*
Test Protocol: **Washington State Department of Ecology Publ. 80-12**

Rep	Conc.	Cont #	Number of Live Organisms					Dissolved Oxygen (mg/L)					pH (units)					Conductivity (umhos/cm)					Temperature (°C)					Percent Survival
			0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
1	CON	27	10	10	10	10	10	8.4	8.5	8.1	7.8	7.5	7.82	7.62	7.42	7.27	7.15	273				302	12.3	12.1	11.7	12.3	12.0	
2		8	10	10	10	10	10	9.0	8.7	8.3	8.1	8.0	7.91	7.57	7.45	7.31	7.21	272				300						
3		22	10	10	10	10	10	9.1	8.8	8.4	8.2	7.8	7.76	7.63	7.43	7.27	7.20	272				297						
1	10PPM	21	10	10	10	10	10	8.8	8.4	8.1	7.9	7.5	7.78	7.61	7.45	7.32	7.25	293				295	12.4	11.9	11.8	12.2	11.8	
2	N. TANKS	7	10	10	10	10	10	8.7	8.2	8.1	8.0	7.8	7.71	7.61	7.38	7.31	7.22	293				300						
3	T20-152	19	10	10	10	10	10	8.7	8.3	8.0	7.7	7.4	7.76	7.64	7.37	7.31	7.18	294				296						
1	100PPM	15	10	10	10	10	10	8.9	8.4	8.2	8.1	8.0	7.70	7.55	7.41	7.30	7.17	293				301	12.1	11.7	12.1	12.2	12.1	
2	N. TANKS	5	10	10	10	10	10	8.9	8.5	7.9	7.6	7.4	7.69	7.61	7.40	7.25	7.14	291				297						
3	T20-152	23	10	10	10	10	10	9.0	8.7	8.4	8.1	8.0	7.69	7.59	7.33	7.27	7.13	292				296						
1	10PPM	13	10	10	10	10	10	9.1	8.2	8.0	7.8	7.5	7.64	7.61	7.35	7.24	7.21	292				302	12.1	11.8	12.0	12.1	11.7	
2	S. TANKS	17	10	10	10	10	10	9.0	8.4	8.1	7.9	7.6	7.72	7.55	7.37	7.28	7.16	292				296						
3	T20-153	4	10	10	10	10	10	9.2	8.5	8.3	8.0	7.8	7.71	7.57	7.34	7.22	7.13	293				300						
1	100PPM	11	10	10	10	10	10	9.0	8.5	8.2	8.0	7.9	7.70	7.63	7.39	7.27	7.15	295				299	12.4	11.8	12.0	12.2	11.7	
2	S. TANKS	3	10	10	10	10	10	9.1	8.7	8.4	8.1	8.0	7.69	7.58	7.34	7.30	7.17	296				304						
3	T20-153	26	10	10	10	10	10	9.0	8.6	8.1	7.9	7.8	7.71	7.55	7.32	7.27	7.13	294				300						
1																												
2																												
3																												
1																												
2																												
3																												
Technician Initials			RT	RT	RT	RT	RT	RT	RT	RT	RT	RT																

Sample	Alk. (init.)	Hard. (init.)	Alk. (fin.)	Hard. (fin.)	Chlorine
	(mg/L as CaCO3)				(mg/L Cl2)
Control	64	88	64	88	<0.03
N. TANKS	64	92	64	92	
S. TANKS	64	88	64	88	

Animal Source: TROUT LODGE
Date Received: 4/22/20

Test Volume: 6.0L
Date of Hatch: 4/1/20
Date of Swim up: 4/18/20

Weights (g): .34 .36 .33 .34 .31 .29 .34 .33 .30 .33
Lengths(mm): 34 35 34 35 30 30 35 32 32 34
Length max/min: 36/30 1.2

μ = .33 Rainier Environmental
μ = .33 Washington Laboratory

Loading: 0.55g/L

5013 Pacific HWY E Suite 20
Tacoma, WA 98424

Dilution Water Source: MHSW 043

QA Check RT

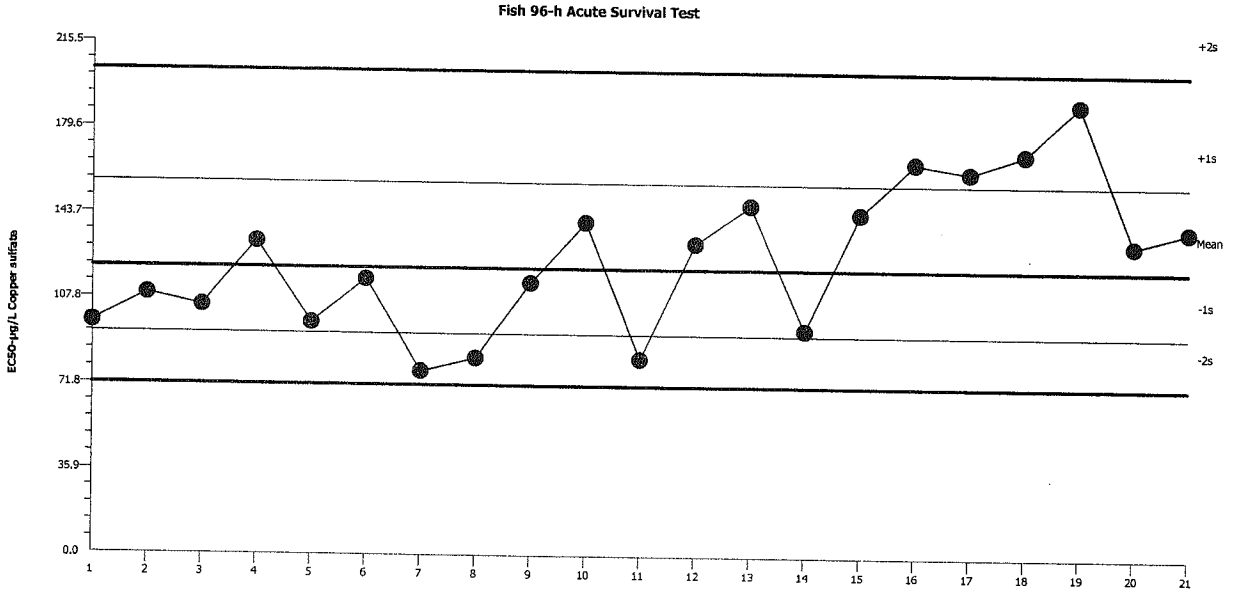
Appendix B
Reference Toxicant Test
Control Chart and Statistical Summary

CETIS QC Plot

Report Date: 08 Jun-20 12:43 (1 of 1)

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Test Type:	Survival (96h)	**Organism:**	Oncorhynchus mykiss (Rainbow Tro	**Material:**	Copper sulfate
Protocol:	Not Applicable	**Endpoint:**	96h Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	121	**Count:**	20	**-1s Warning Limit:**	93.24	**-2s Action Limit:**	71.84
Sigma:	NA	**CV:**	29.80%	**+1s Warning Limit:**	157.1	**+2s Action Limit:**	203.9

Quality Control Data

Point	Year	Month	Day	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Aug	30	97.72	-23.31	-0.8203			01-6631-0399	00-2872-0274
2		Oct	5	109.7	-11.34	-0.3773			09-8718-1650	14-5303-2875
3		Nov	6	104.7	-16.3	-0.5545			20-5282-8357	01-3690-0719
4		Dec	5	132	10.93	0.3314			01-4499-1094	07-5652-1457
5	2019	Jan	7	97.72	-23.31	-0.8203			03-9395-5944	09-6087-0434
6		Feb	9	116.1	-4.882	-0.1579			13-6349-4914	05-5573-8325
7		Mar	12	77.56	-43.47	-1.706	(-)		03-9582-1391	08-0363-8342
8		Apr	19	83.12	-37.9	-1.44	(-)		16-0727-4914	09-8538-6220
9		May	21	114.9	-6.156	-0.2002			13-0213-5670	12-8044-7071
10		Jun	21	140.6	19.61	0.5759			18-7198-9789	02-0902-1290
11		Jul	23	83.12	-37.9	-1.44	(-)		09-5504-5129	09-5466-8341
12		Aug	23	132	10.93	0.3314			06-2129-4986	03-1480-8200
13		Sep	20	148.1	27.08	0.7744			14-9775-6582	02-8526-9159
14		Oct	22	95.48	-25.54	-0.9089			08-2604-9852	04-5996-4554
15		Nov	25	144.7	23.7	0.6858			19-0900-7567	17-7816-6246
16		Dec	26	166.2	45.22	1.217	(+)		18-0718-4325	01-1522-2292
17	2020	Jan	27	162.5	41.43	1.129	(+)		15-7428-0290	09-7189-2054
18		Feb	28	170.1	49.11	1.306	(+)		09-4267-7927	12-7910-1452
19		Apr	1	191	69.94	1.749	(+)		13-6543-5000	21-3363-8866
20		May	1	132	10.93	0.3314			05-3085-5611	09-0915-7454
21		Jun	4	138.2	17.17	0.5086			02-5099-4531	13-4027-8146

CETIS Summary Report

Fish 96-h Acute Survival Test

Rainier Environmental Laboratory

Batch ID:	00-5413-6128	**Test Type:**	Survival (96h)	**Analyst:**	Eric Tollefson
Start Date:	04 Jun-20 11:15	**Protocol:**	Not Applicable	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	08 Jun-20 12:00	**Species:**	Oncorhynchus mykiss	**Brine:**	
Duration:	4d 1h	**Source:**	Trout Lodge Fish Farm	**Age:**	46d
Sample ID:	19-4490-5545	**Code:**	RA060420OM	**Client:**	Internal Lab
Sample Date:	04 Jun-20	**Material:**	Copper sulfate	**Project:**	
Receive Date:	04 Jun-20	**Source:**	Reference Toxicant		
Sample Age:	11h	**Station:**	In House		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
21-4329-7482	96h Survival Rate	50	100	70.71	15.5%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
13-4027-8146	96h Survival Rate	LC50	138.2	119.3	160.1		Spearman-Kärber

96h Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	3	1	1	1	1	1	0	0	0.0%	0.0%
25		3	1	1	1	1	1	0	0	0.0%	0.0%
50		3	1	1	1	1	1	0	0	0.0%	0.0%
100		3	0.7667	0.7451	0.7882	0.7	0.8	0.03333	0.05774	7.53%	23.33%
200		3	0.2	0.1253	0.2747	0	0.4	0.1155	0.2	100.0%	80.0%
400		3	0	0	0	0	0	0	0		100.0%

96h Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	1	1	1
25		1	1	1
50		1	1	1
100		0.7	0.8	0.8
200		0.4	0.2	0
400		0	0	0

96h Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	10/10	10/10	10/10
25		10/10	10/10	10/10
50		10/10	10/10	10/10
100		7/10	8/10	8/10
200		4/10	2/10	0/10
400		0/10	0/10	0/10

Appendix C
Chain-of-Custody Form

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

RUSH

Laboratory Reference #: 04-139

Laboratory: Rainier Environmental

Attention: Eric Tollefson

Address: 5013 Pacific Highway E, Suite 20, Fife, WA 98424

Phone Number: (253) 922-8898

Turnaround Request

1 Day 2 Day 3 Day

Standard

Other: 1 week

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: Star Forge UST Waste Designation

Project Name:

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	N. Tanks Slag	4/22/20	10:30	Soil	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-152
	S. Tanks Slag	4/22/20	11:00	Soil	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-153

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:	[illegible]	OSE	6/1/20	1600	
Received by:	Eric Tollefson	RAINIER	6/2/20	1350	
Relinquished by:					
Received by:					
Relinquished by:					
Received by:					

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge UST Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn, Mo	Total MTCA Metals + Cu, Ni, Zn RCRA	TCLP Metals LEAD ONLY	HEM (oil and grease) 1664A						% Moisture
1	UST-34	4/21/2020	1150	Water	8					X			X		X				X									
2	UST-33	↓	1210	↓	↓					↓			↓		↓				↓		X							
3	UST-32		1230																									
4	UST-30		1250																									
5	UST-29		1320																									
6	UST-27	↓	1400	↓	↓					↓			↓		↓				↓									
7	UST-21	↓	1530	Product ~~fuel~~	2					X					X													
8	UST-31-sand	4/22/2020	0850	soil	5					X			X		X					X								X
9	UST-28-sand	↓	0920	↓	↓					↓			↓		↓					↓								X
10	UST-26-sand	↓	0955	↓	↓					↓			↓		↓					↓								X

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Data to davehill@dhenviro.com
nathan.moxley@dhenviro.com
⊗ Added 5/1/2020. DB (2 day TAT)
○ Added 5/15/20 DB 5 day TAT
● Added 6/1/2020. DB 3 day TAT
⊖ Added 6/1/2020. DB (1 week TAT)

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: UST Star Forge Waste Designation
Project Manager: Dave Hill
Sampled by: N. Moxley

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☒ 5-day (other)

Laboratory Number: 04-139

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
11	N. Tanks Slag	4/22/20	1030	Soil	5
12	S. Tanks Slag	↓	1100	↓	↓

Lab ID	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP ~~Metals~~ Cr	~~HEM (oil and grease) 1664~~ TCLP Cr, As	Archive		Fish Bioassay		% Moisture
11					0			0		0				0		●	/	X		0		0
12					0			0		0				0			●	X		0		0

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	4/22/2020	1230
Received	[signature]	OSE	4/22/20	1230
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
0

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

October 29, 2019

Corey League, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

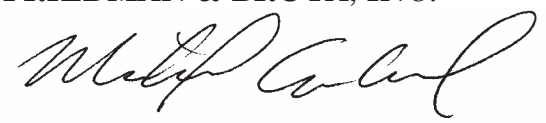
Dear Mr League:

Included are the results from the testing of material submitted on October 25, 2019 from the SOU_ 0995-002_ 20191025, F&BI 910502 project. There are 3 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SOU1029R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 25, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_ 0995-002_ 20191025, F&BI 910502 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
910502 -01	UST-15-20191024
910502 -02	UST-16-20191024
910502 -03	UST-17-20191024
910502 -04	UST-18-20191024
910502 -05	UST-19-20191024
910502 -06	UST-20-20191024
910502 -07	UST-21-20191024
910502 -08	UST-22-20191024

The samples were sent to Fremont Analytical for flashpoint analysis. The report will be forwarded upon receipt.

All quality control requirements were acceptable.

Date of Report: 10/29/19
Date Received: 10/25/19
Project: SOU_ 0995-002_ 20191025, F&BI 910502
Date Extracted: 10/25/19
Date Analyzed: 10/25/19

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 56-165)
UST-15-20191024 910502-01 1/1,000	ND	D	ND	143
UST-16-20191024 910502-02 1/1,000	ND	D	ND	163
UST-17-20191024 910502-03 1/1,000	ND	D	ND	150
UST-18-20191024 910502-04 1/1,000	ND	D	ND	137
UST-19-20191024 910502-05 1/1,000	ND	D	ND	143
UST-20-20191024 910502-06 1/1,000	ND	D	ND	68
UST-21-20191024 910502-07 1/1,000	ND	D	ND	143
UST-22-20191024 910502-08 1/1,000	ND	D	ND	155
Method Blank 09-2647 MB	ND	ND	ND	94

ND - Material not detected at or above 20,000 mg/kg gas, 50,000 mg/kg diesel and 250,000 mg/kg heavy oil.

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

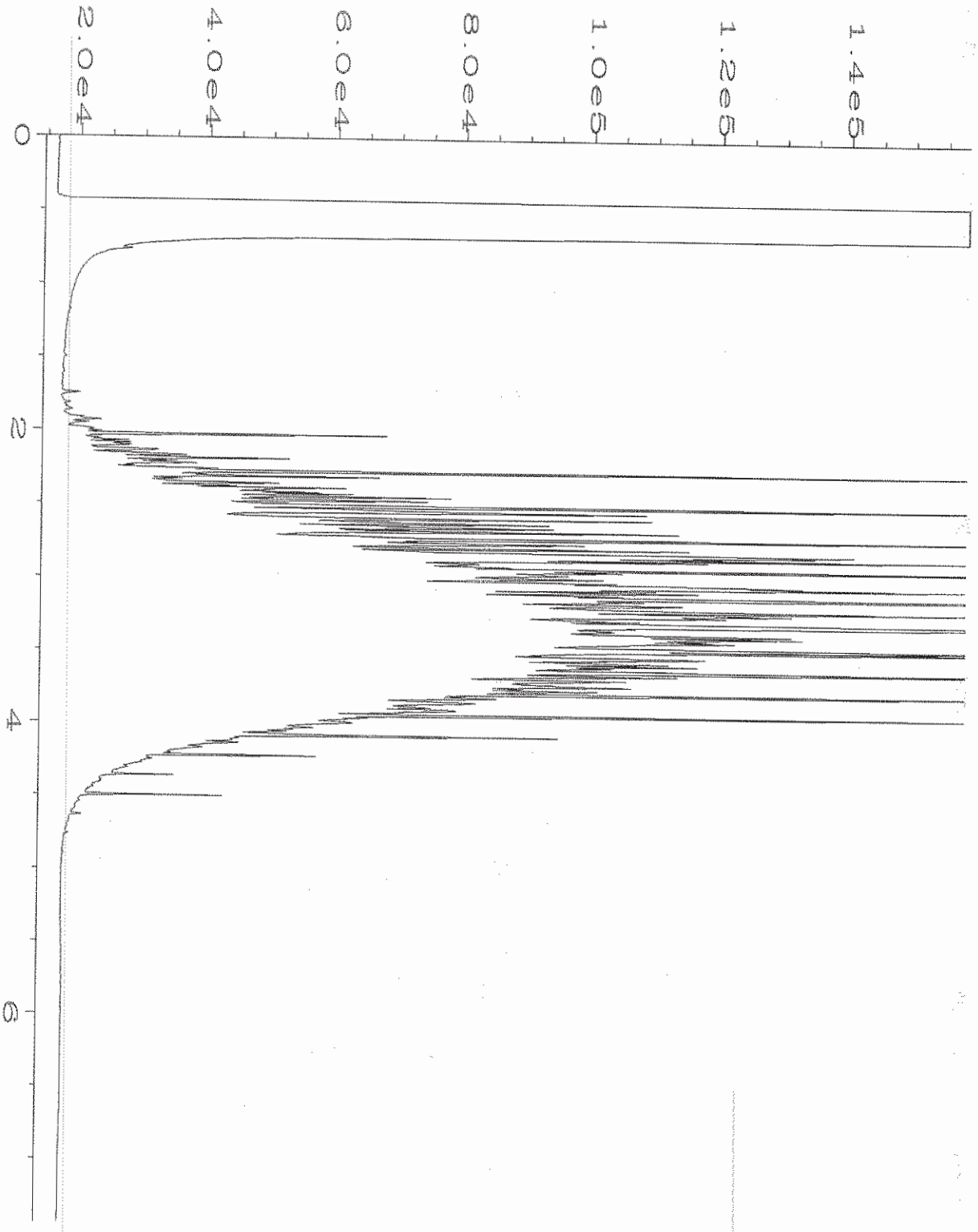
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

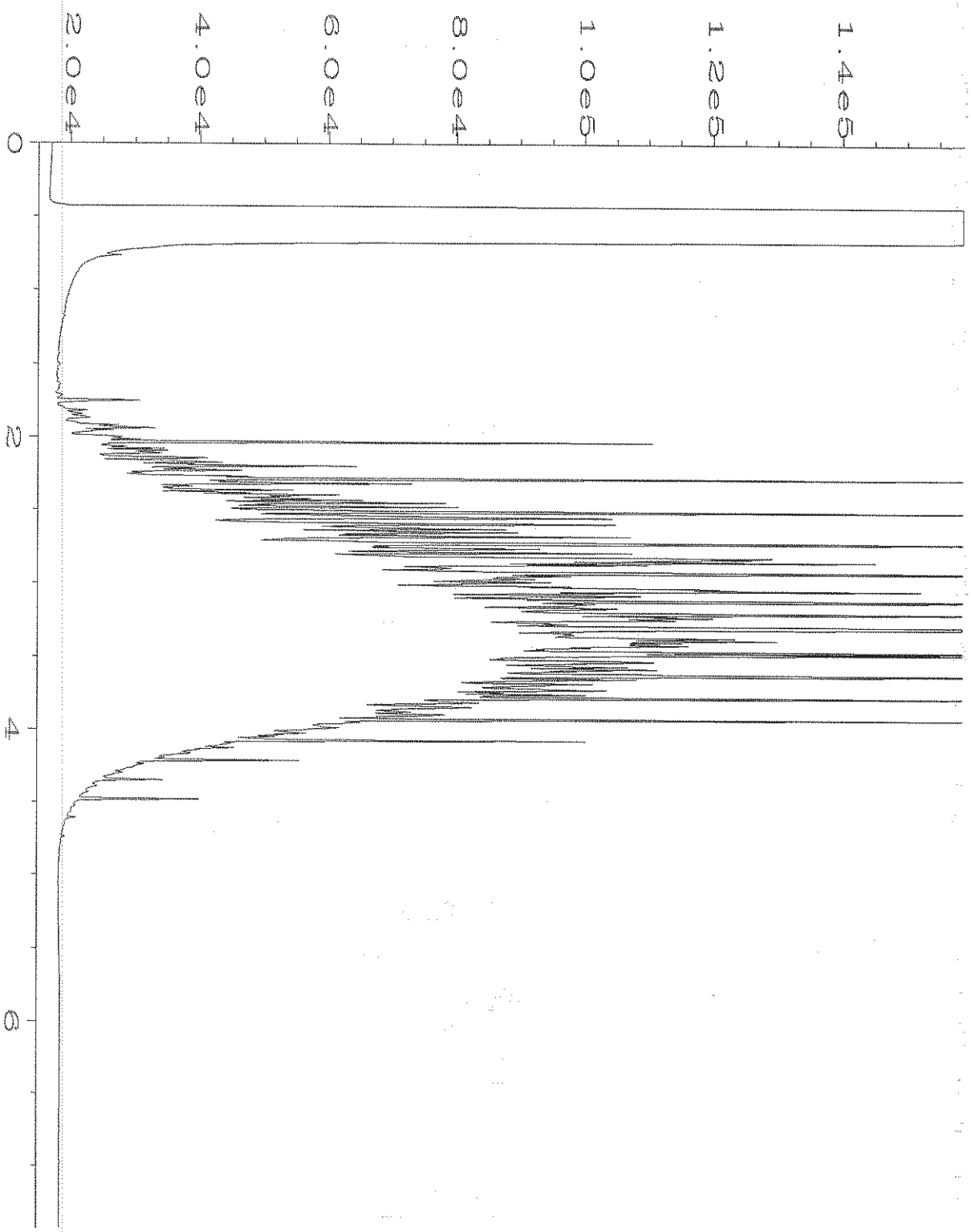
vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

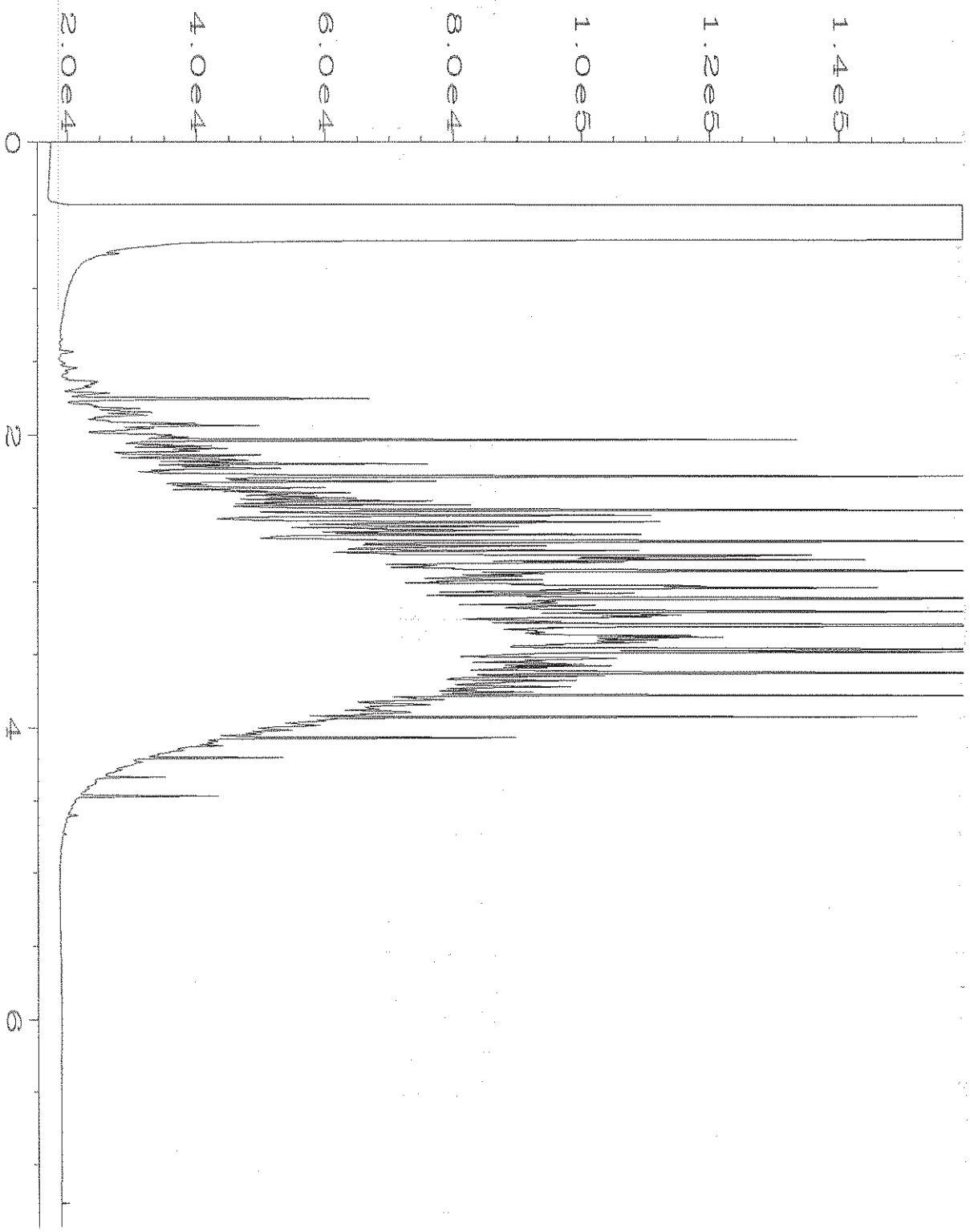


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Operator : TL
Instrument : GC1
Sample Name : 910502-01 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 03:04 PM
Report Created on: 28 Oct 19 09:24 AM

Page Number : 1
Vial Number : 34
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

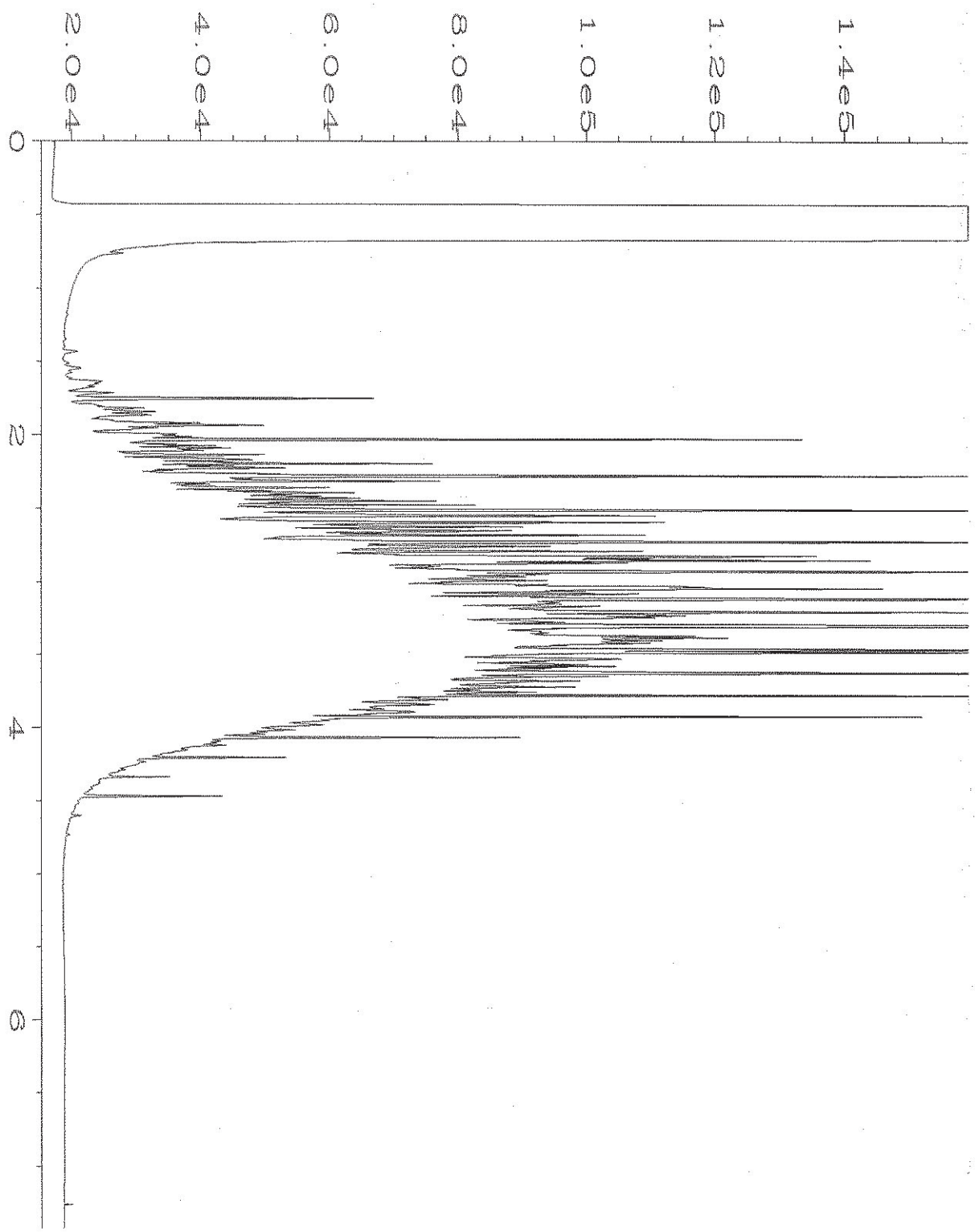


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Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 35
Sample Name	: 910502-02 1/10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 25 Oct 19 03:13 PM	Instrument Method	: DX.MTH
Report Created on	: 28 Oct 19 09:24 AM	Analysis Method	: DX.MTH



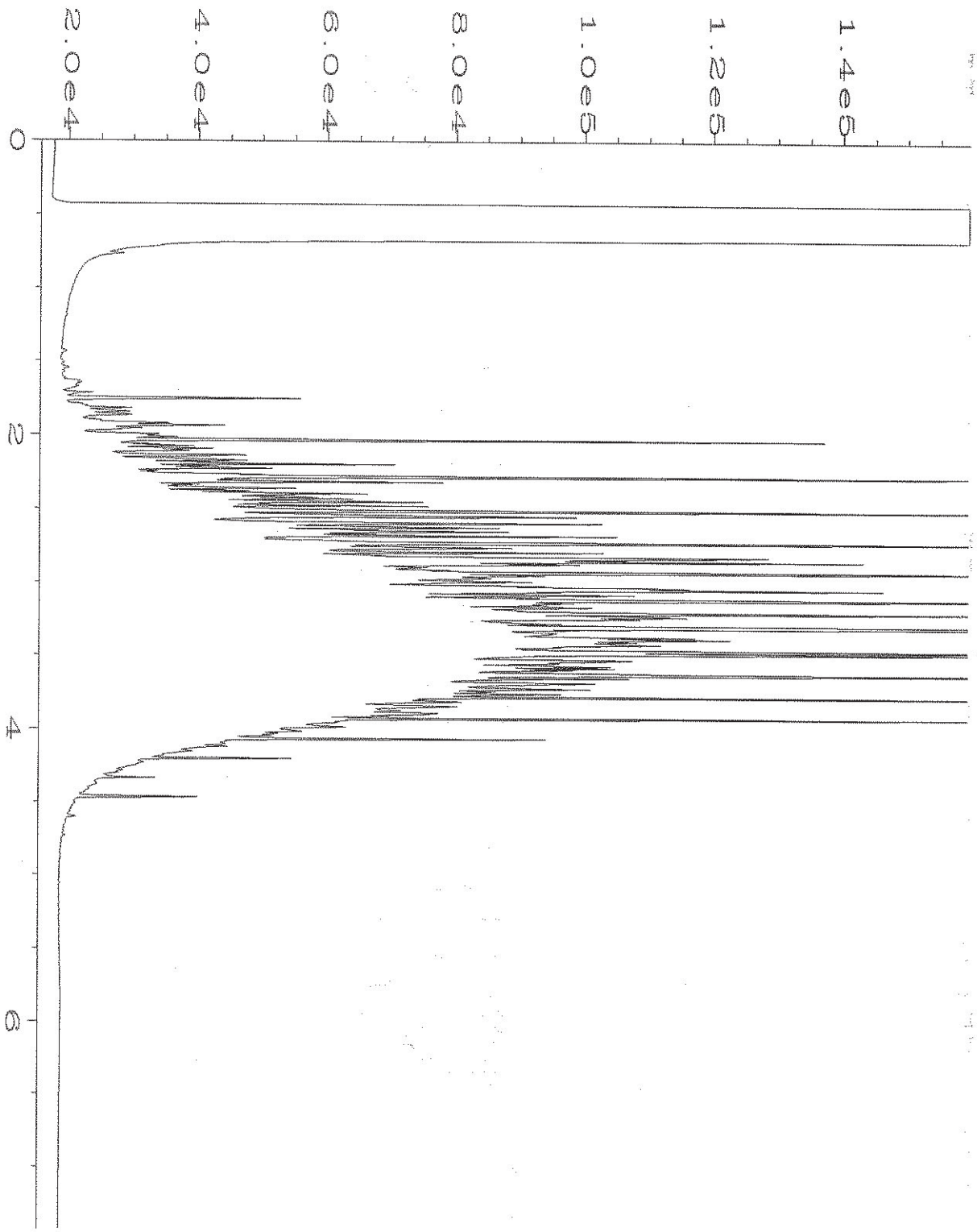
Data File Name : C:\HPCHEM\1\DATA\10-25-19\036F0601.D
Operator : TL
Instrument : GC1
Sample Name : 910502-03 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 03:24 PM
Report Created on: 28 Oct 19 09:25 AM

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



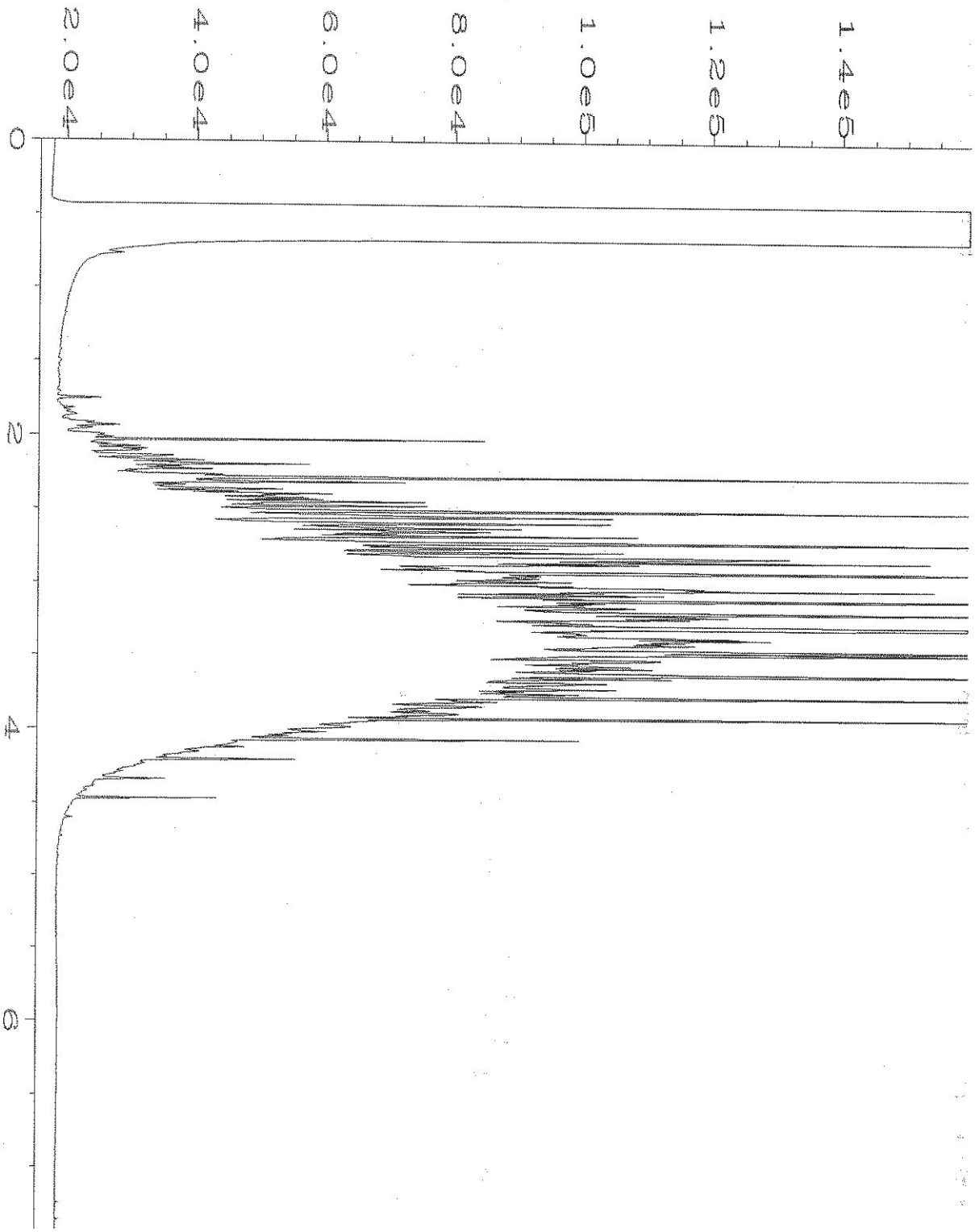
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Instrument : GC1
Sample Name : 910502-03 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 03:24 PM
Report Created on: 28 Oct 19 09:25 AM

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



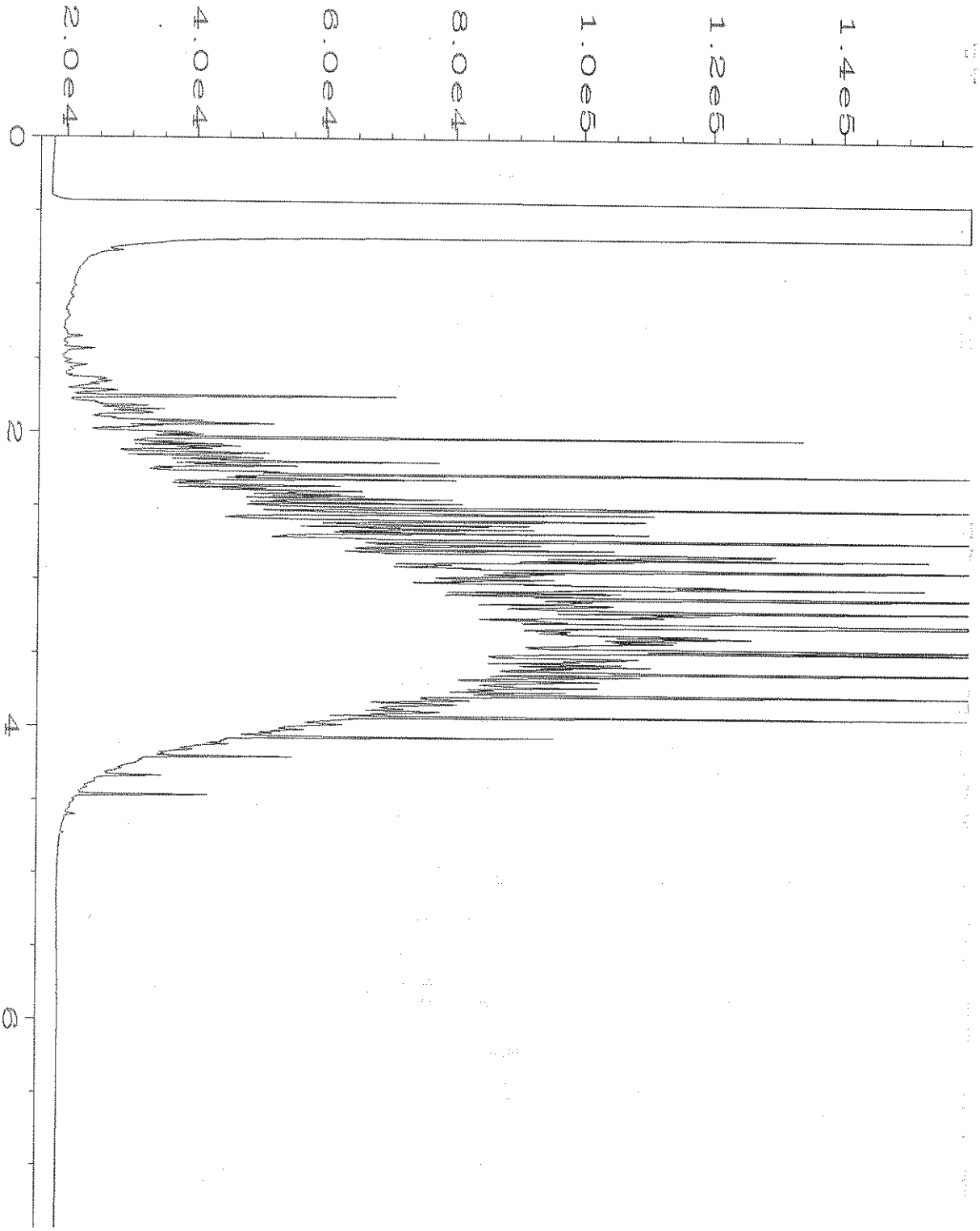
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Operator : TL
Instrument : GC1
Sample Name : 910502-04 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 03:36 PM
Report Created on: 28 Oct 19 09:25 AM

Page Number : 1
Vial Number : 37
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



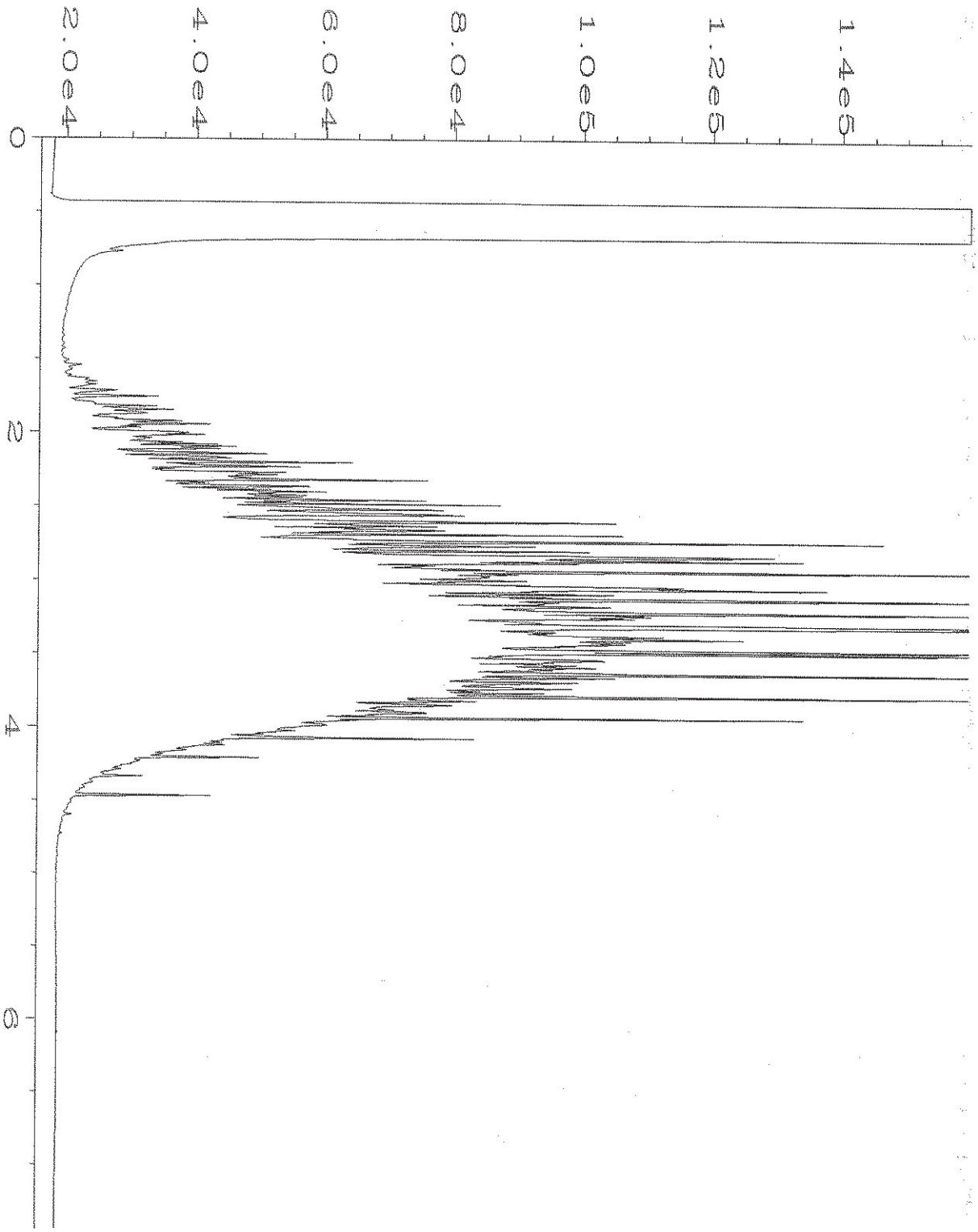
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Operator : TL
Instrument : GC1
Sample Name : 910502-05 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 03:47 PM
Report Created on: 28 Oct 19 09:25 AM

Page Number : 1
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Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



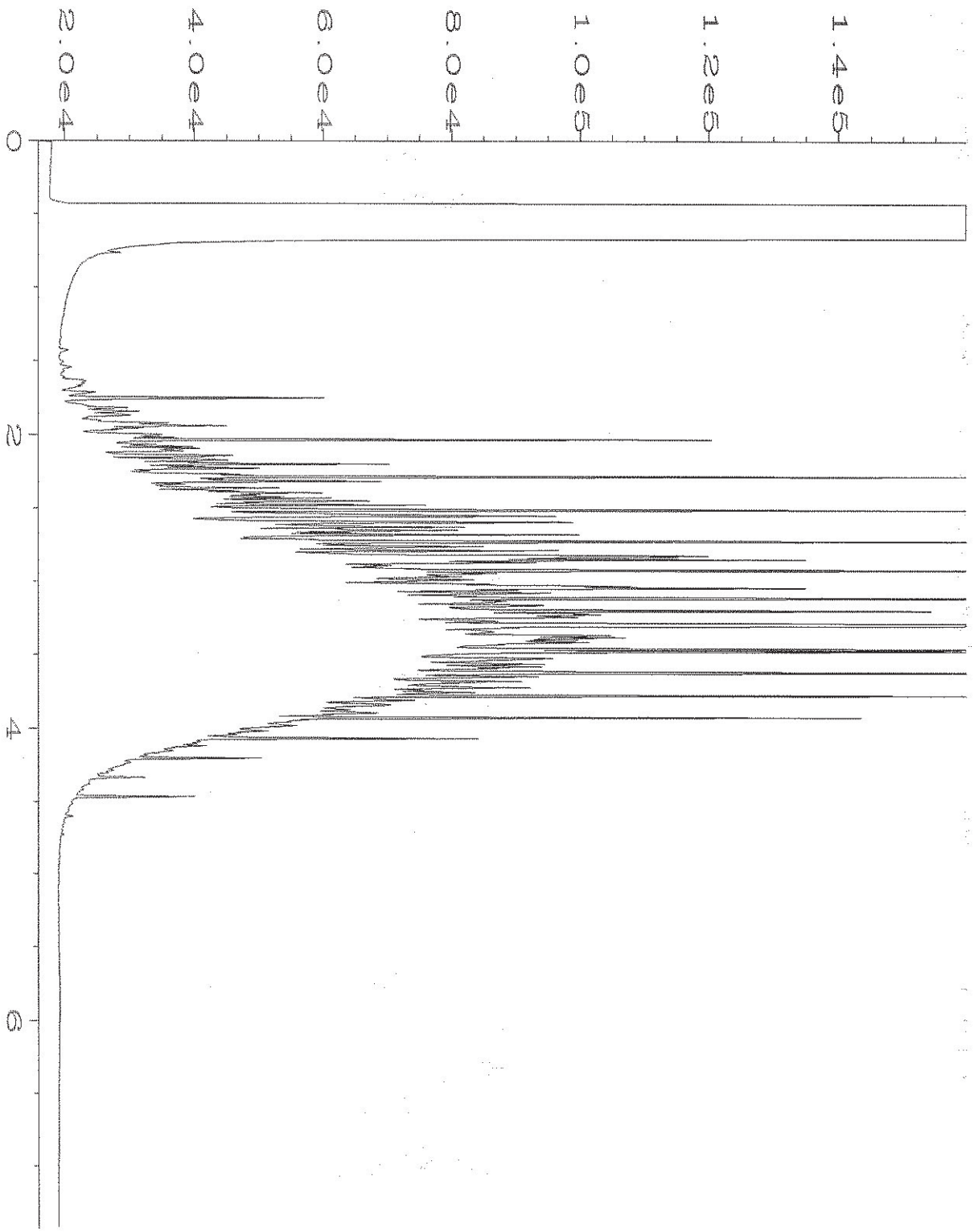
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Operator : TL
Instrument : GC1
Sample Name : 910502-06 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 03:59 PM
Report Created on: 28 Oct 19 09:26 AM

Page Number : 1
Vial Number : 39
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



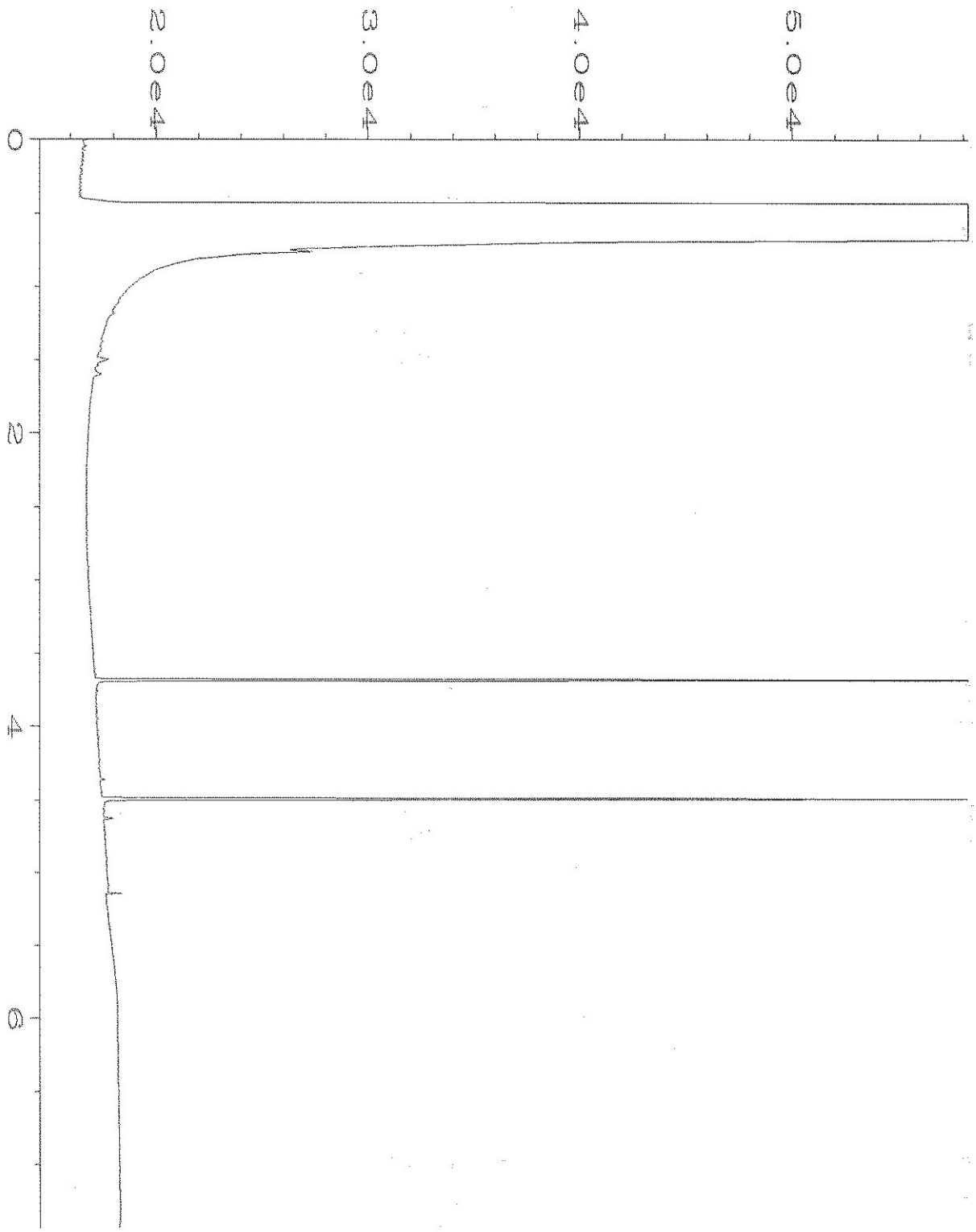
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Operator : TL
Instrument : GC1
Sample Name : 910502-07 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 04:10 PM
Report Created on: 28 Oct 19 09:26 AM

Page Number : 1
Vial Number : 40
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



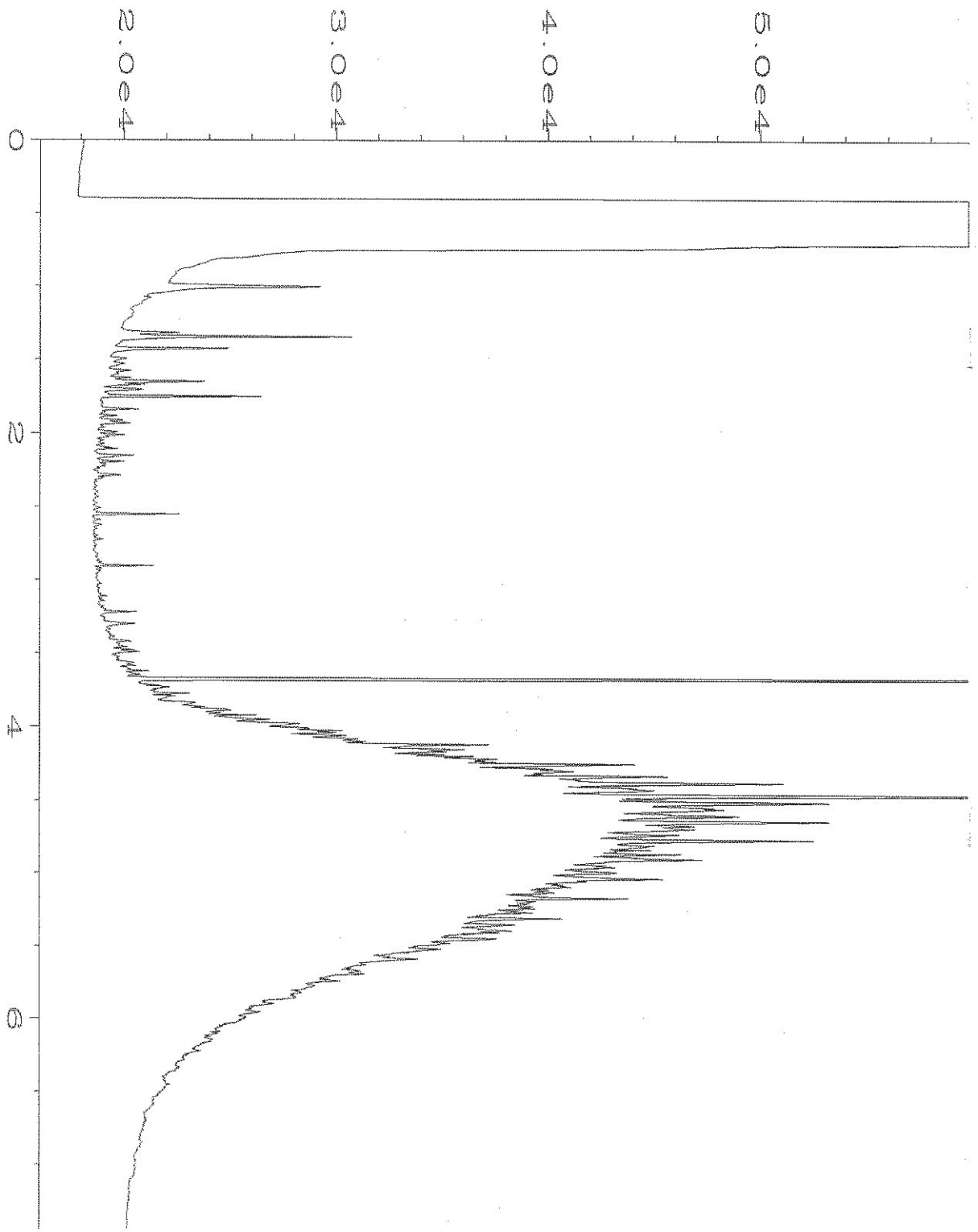
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Operator : TL
Instrument : GC1
Sample Name : 910502-08 1/10
Run Time Bar Code:
Acquired on : 25 Oct 19 04:22 PM
Report Created on: 28 Oct 19 09:26 AM

Page Number : 1
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Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

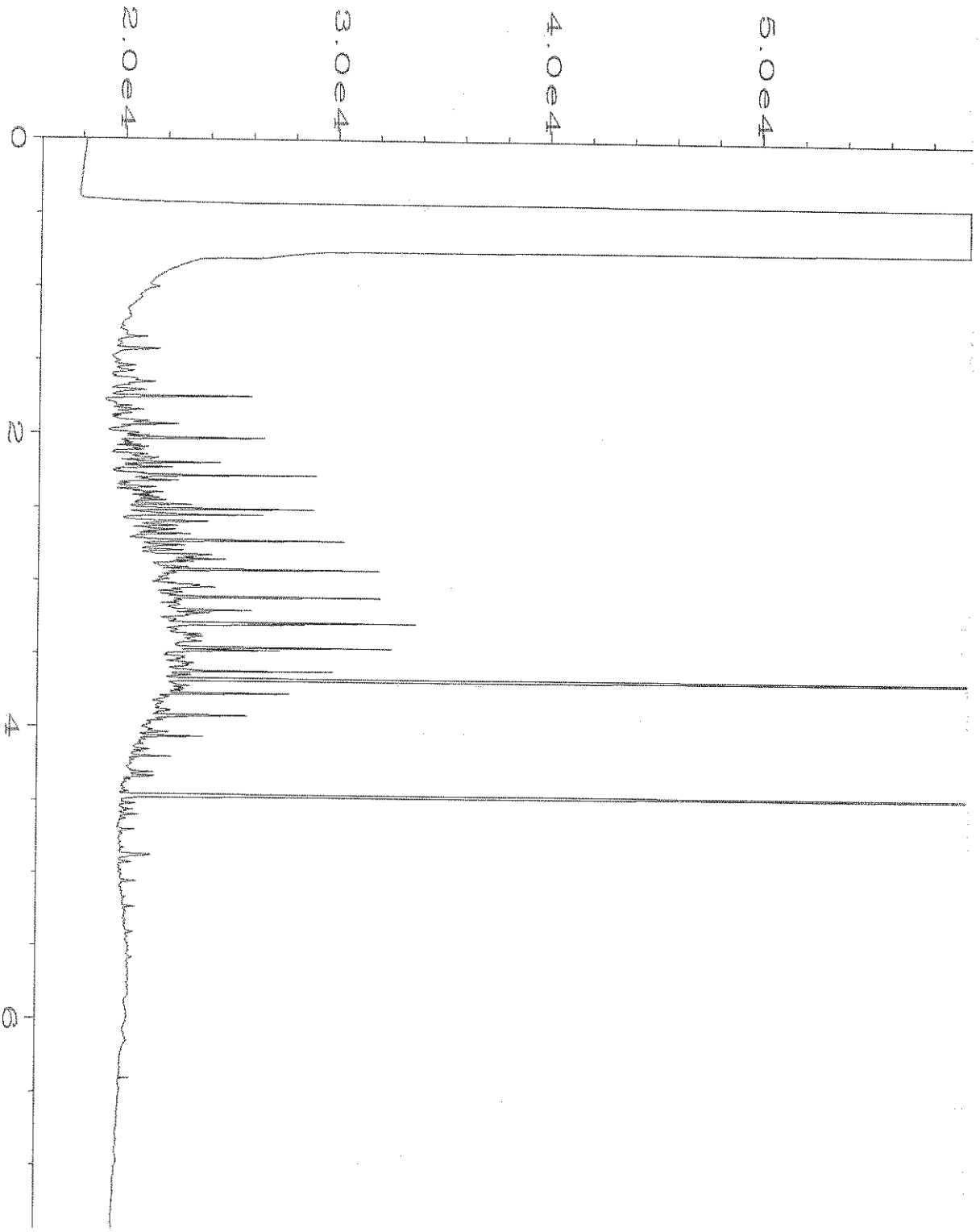


Data File Name : C:\HPCHEM\1\DATA\10-25-19\006F0401.D
Operator : TL
Instrument : GC1
Sample Name : 09-2647 mb
Run Time Bar Code:
Acquired on : 25 Oct 19 09:06 AM
Report Created on: 28 Oct 19 09:18 AM

Page Number : 1
Vial Number : 6
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\10-25-19\096F0701.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 96
Sample Name	: HCIDs G/M 57-167	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 25 Oct 19 06:40 PM	Instrument Method	: DX.MTH
Report Created on	: 28 Oct 19 09:17 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\1\DATA\10-25-19\097F0701.D
Operator : TL
Instrument : GC1
Sample Name : HCIDs Dx 57-78D
Run Time Bar Code:
Acquired on : 25 Oct 19 06:51 PM
Report Created on: 28 Oct 19 09:17 AM

Page Number : 1
Vial Number : 97
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH

910502

SAMPLE CHAIN OF CUSTODY

ME 10/25/19 DO2

Page # 1 of 1

Send Report To Corey League

Company SoundEarth Strategies, Inc

Address 2811 Fairview Ave East, Suite 2000

City, State, ZIP Seattle, WA 98102

Phone # 206-306-1900 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. 0995-002

PO #

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 HR

Rush charges authorized by: C. League

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☒ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	Ph ID	Flash Point	Notes
UST-15-20191024	UST-15	—	01 A/B	10/24/19	1527	Product	2							X	X	
UST-16-20191024	UST-16		02		1518											
UST-17-20191024	UST-17		03		1502											
UST-18-20191024	UST-18		04		1455											
UST-19-20191024	UST-19		05		1440											—
UST-20-20191024	UST-20		06		1425											
UST-21-20191024	UST-21		07		1410											
UST-22-20191024	UST-22		08	↓	1350	↓	↓							↓	↓	

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Corey League	SoundEarth	10/24/19	1745
Received by:	Nhan Phan	FedT	10/25/19	1000
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 910502
Work Order Number: 1910463

October 29, 2019

Attention Michael Erdahl:

Fremont Analytical, Inc. received 8 sample(s) on 10/25/2019 for the analyses presented in the following report.

Flashpoint by EPA 1010/ASTM D93

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,



Brianna Barnes
Project Manager

Date: *10/29/2019*

CLIENT: Friedman & Bruya
Project: 910502
Work Order: 1910463

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1910463-001	UST-15-20191024	10/24/2019 3:27 PM	10/25/2019 2:38 PM
1910463-002	UST-16-20191024	10/24/2019 3:18 PM	10/25/2019 2:38 PM
1910463-003	UST-17-20191024	10/24/2019 3:02 PM	10/25/2019 2:38 PM
1910463-004	UST-18-20191024	10/24/2019 2:55 PM	10/25/2019 2:38 PM
1910463-005	UST-19-20191024	10/24/2019 2:40 PM	10/25/2019 2:38 PM
1910463-006	UST-20-20191024	10/24/2019 2:25 PM	10/25/2019 2:38 PM
1910463-007	UST-21-20191024	10/24/2019 2:10 PM	10/25/2019 2:38 PM
1910463-008	UST-22-20191024	10/24/2019 1:50 PM	10/25/2019 2:38 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1910463**
Date: **10/29/2019**

CLIENT: Friedman & Bruya
Project: 910502

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 3:27:00 PM
Project: 910502
Lab ID: 1910463-001
Matrix: Product
Client Sample ID: **UST-15-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	190			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 3:18:00 PM
Project: 910502
Lab ID: 1910463-002
Matrix: Product
Client Sample ID: **UST-16-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	180			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 3:02:00 PM
Project: 910502
Lab ID: 1910463-003
Matrix: Product
Client Sample ID: **UST-17-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	165			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 2:55:00 PM
Project: 910502
Lab ID: 1910463-004
Matrix: Product
Client Sample ID: **UST-18-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	165			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 2:40:00 PM
Project: 910502
Lab ID: 1910463-005
Matrix: Product
Client Sample ID: **UST-19-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	176			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 2:25:00 PM
Project: 910502
Lab ID: 1910463-006
Matrix: Product
Client Sample ID: **UST-20-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	158			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 2:10:00 PM
Project: 910502
Lab ID: 1910463-007
Matrix: Product
Client Sample ID: **UST-21-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	>200			°F	1	10/28/2019 11:24:51 AM

Analytical Report

Work Order: **1910463**
Date Reported: **10/29/2019**

Client: Friedman & Bruya
Collection Date: 10/24/2019 1:50:00 PM
Project: 910502
Lab ID: 1910463-008
Matrix: Product
Client Sample ID: **UST-22-20191024**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Flashpoint by EPA 1010/ASTM D93				Batch ID: R54883		Analyst: CJ
Flashpoint	183			°F	1	10/28/2019 11:24:51 AM

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1910463**
Logged by:	**Clare Griggs**	Date Received:	**10/25/2019 2:38:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes	☑	No ☐	Not Present	☐
2.	How was the sample delivered?	FedEx				

Log In

3.	Coolers are present?	Yes	☑	No ☐	NA	☐
4.	Shipping container/cooler in good condition?	Yes	☑	No ☐		
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes	☐	No ☑	Not Required	☐
6.	Was an attempt made to cool the samples?	Yes	☑	No ☐	NA	☐
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes	☑	No ☐	NA	☐
8.	Sample(s) in proper container(s)?	Yes	☑	No ☐		
9.	Sufficient sample volume for indicated test(s)?	Yes	☑	No ☐		
10.	Are samples properly preserved?	Yes	☑	No ☐		
11.	Was preservative added to bottles?	Yes	☐	No ☑	NA	☐
12.	Is there headspace in the VOA vials?	Yes	☐	No ☐	NA	☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes	☑	No ☐		
14.	Does paperwork match bottle labels?	Yes	☑	No ☐		
15.	Are matrices correctly identified on Chain of Custody?	Yes	☑	No ☐		
16.	Is it clear what analyses were requested?	Yes	☑	No ☐		
17.	Were all holding times able to be met?	Yes	☑	No ☐		

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes	☐	No ☐	NA	☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp °C
COoler	4.6
Sample	5.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1910463

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 3012 16th Ave W
City, State, ZIP Seattle, WA 98119
Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Fremont
PROJECT NAME/NO. 910502
PO # A-438
REMARKS: Please Email Results

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 24h
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dioxins/Furans	EPH	VPH	Flashpoint							Notes
UST-15-20191024		10/24/19	1527	product					x							
UST-16-20191024			1518						x							
UST-17-20191024			502						x							
UST-18-20191024			1455						x							
UST-19-20191024			1440						x							
UST-20-20191024			1425						x							
UST-21-20191024			1410						x							
UST-22-20191024			1350						x							

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	10/25/19	10:00 AM
Received by:		Carter Johnson	FAI	10/25/19	1438
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

October 29, 2019

Corey League, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

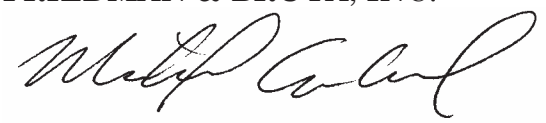
Dear Mr League:

Included are the results from the testing of material submitted on October 25, 2019 from the SOU_0995-002_ 20191025, F&BI 910503 project. There are 3 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
SOU1029R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 25, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0995-002_ 20191025, F&BI 910503 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
910503 -01	UST-27-20191024
910503 -02	UST-28-20191024
910503 -03	UST-29-20191024
910503 -04	UST-31-20191024
910503 -05	UST-32-20191024
910503 -06	UST-33-20191024
910503 -07	UST-34-20191024

All quality control requirements were acceptable.

Date of Report: 10/29/19
Date Received: 10/25/19
Project: SOU_0995-002_ 20191025, F&BI 910503
Date Extracted: 10/25/19
Date Analyzed: 10/25/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Corrected ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 47-140)
UST-27-20191024 910503-01	UST-34	ND	D	ND	94
UST-28-20191024 910503-02	UST-33	ND	D	ND	ip
UST-29-20191024 910503-03	UST-32	ND	ND	D	95
UST-31-20191024 910503-04	UST-30	ND	D	ND	67
UST-32-20191024 910503-05	UST-29	ND	D	ND	90
UST-33-20191024 910503-06	UST-28	ND	D	ND	81
UST-34-20191024 910503-07	UST-27	ND	D	ND	94
Method Blank 09-2653 MB		ND	ND	ND	96

ND - Material not detected at or above 0.2 mg/L gas, 0.5 mg/L diesel and 0.5 mg/L heavy oil.

UST-26 through UST-35 were named incorrectly at the time of sampling. The corrected tank IDs are listed here, based on the letter dated Mar. 2, 2020 from Mr. Marten (Marten Law) to Mr. Imke (Ecology)

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

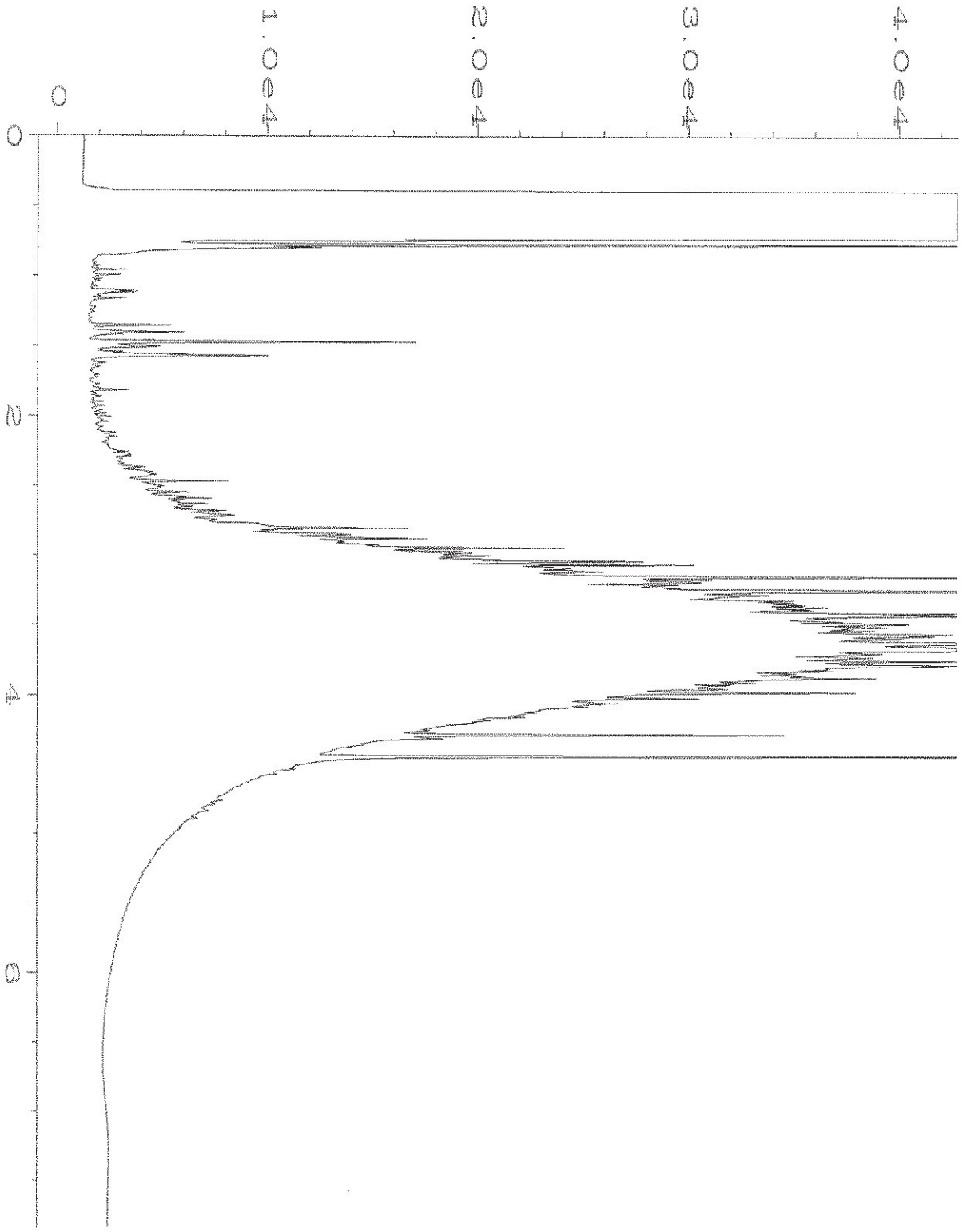
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

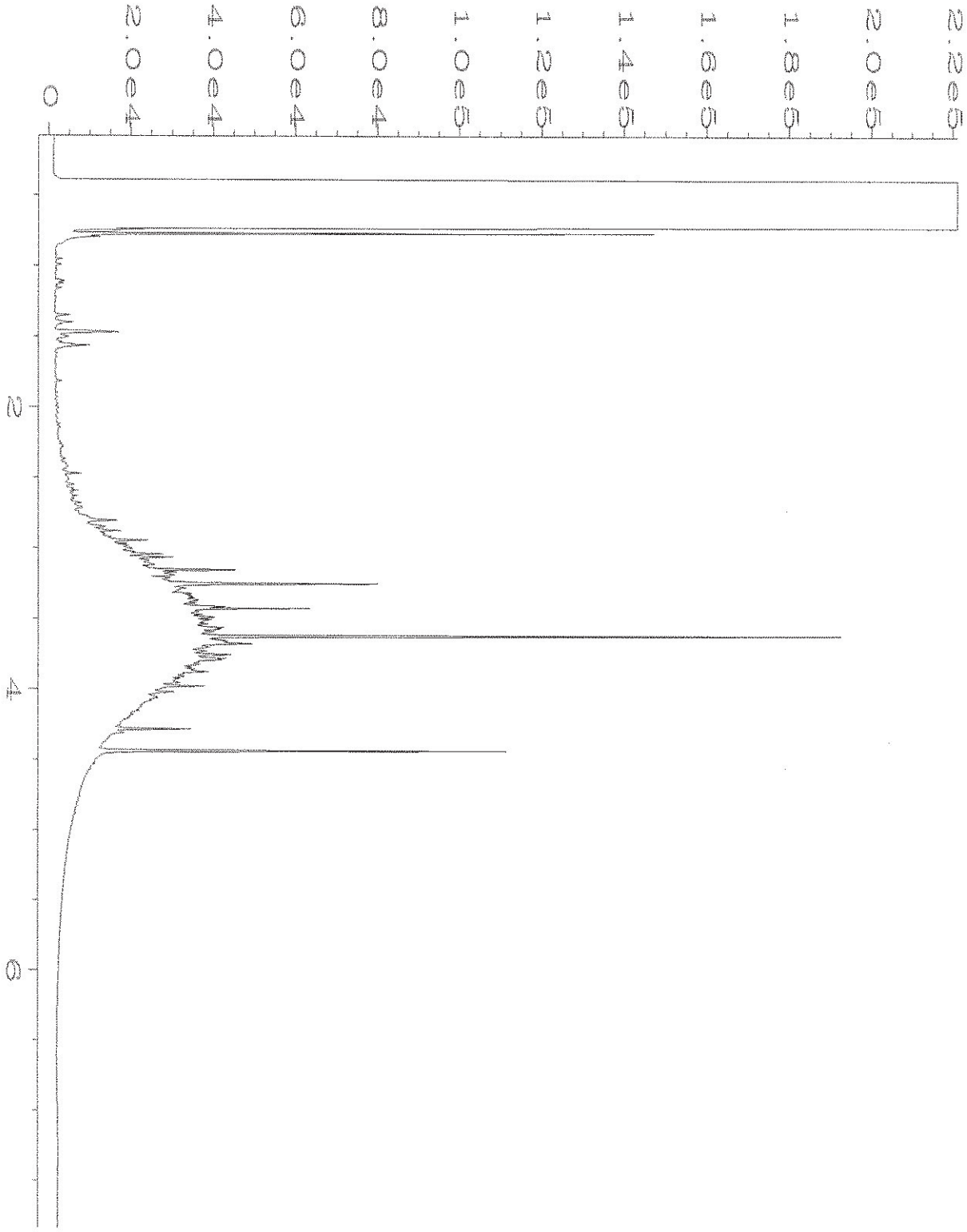
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

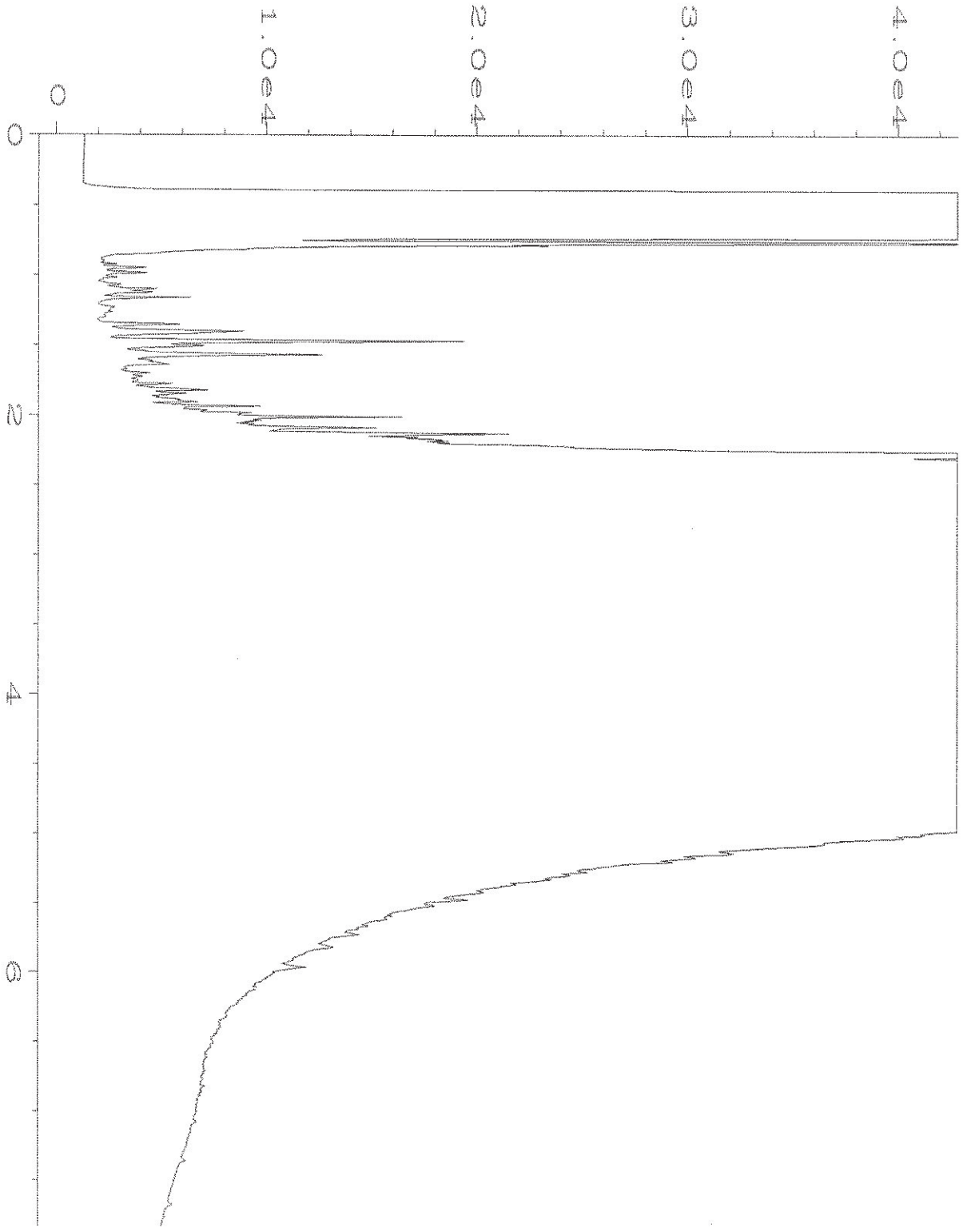


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Instrument	: GC#4	Vial Number	: 30
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Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 25 Oct 19 03:36 PM	Instrument Method	: DX.MTH
Report Created on	: 28 Oct 19 10:02 AM	Analysis Method	: DEFAULT.MTH



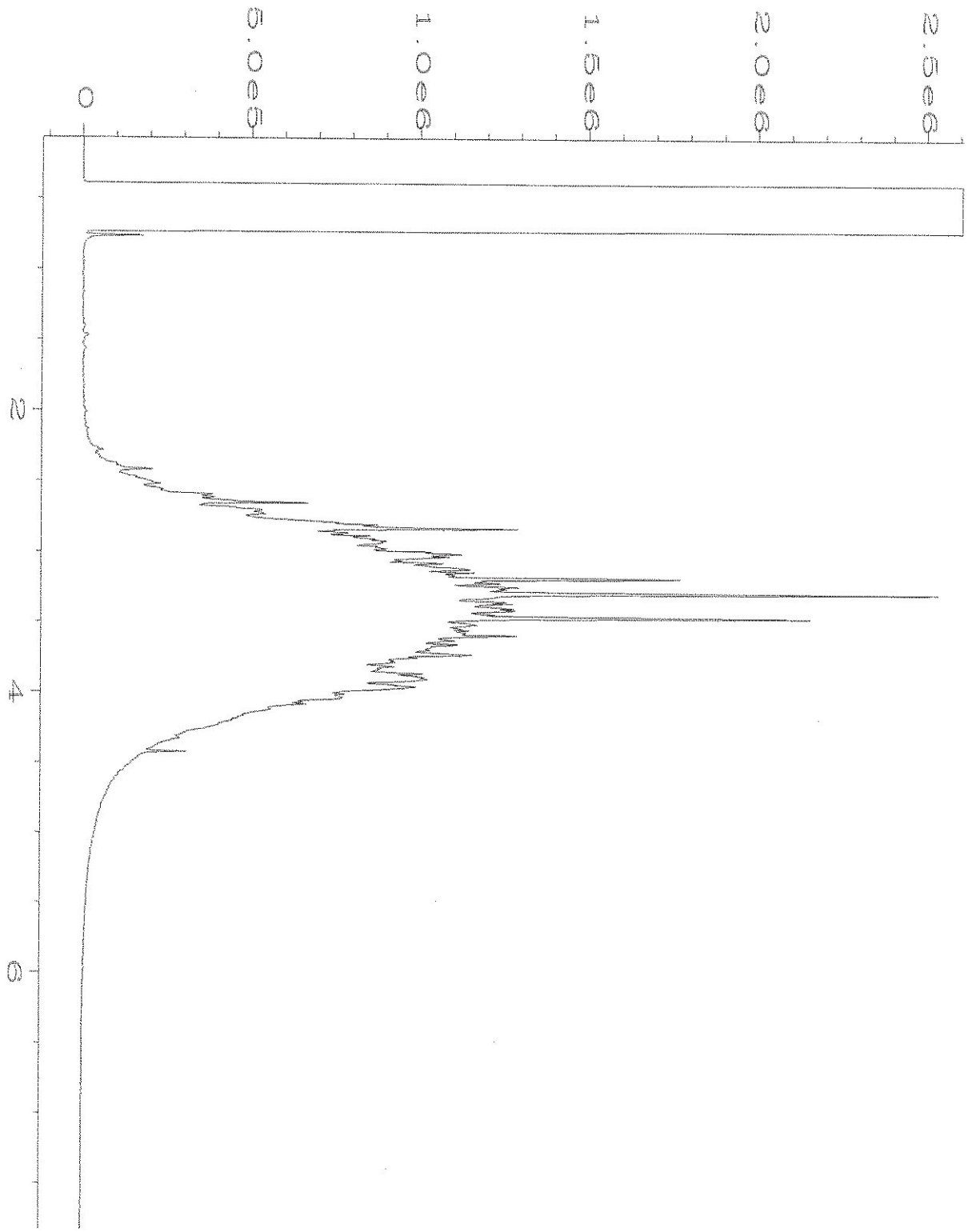
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Report Created on: 28 Oct 19 10:02 AM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



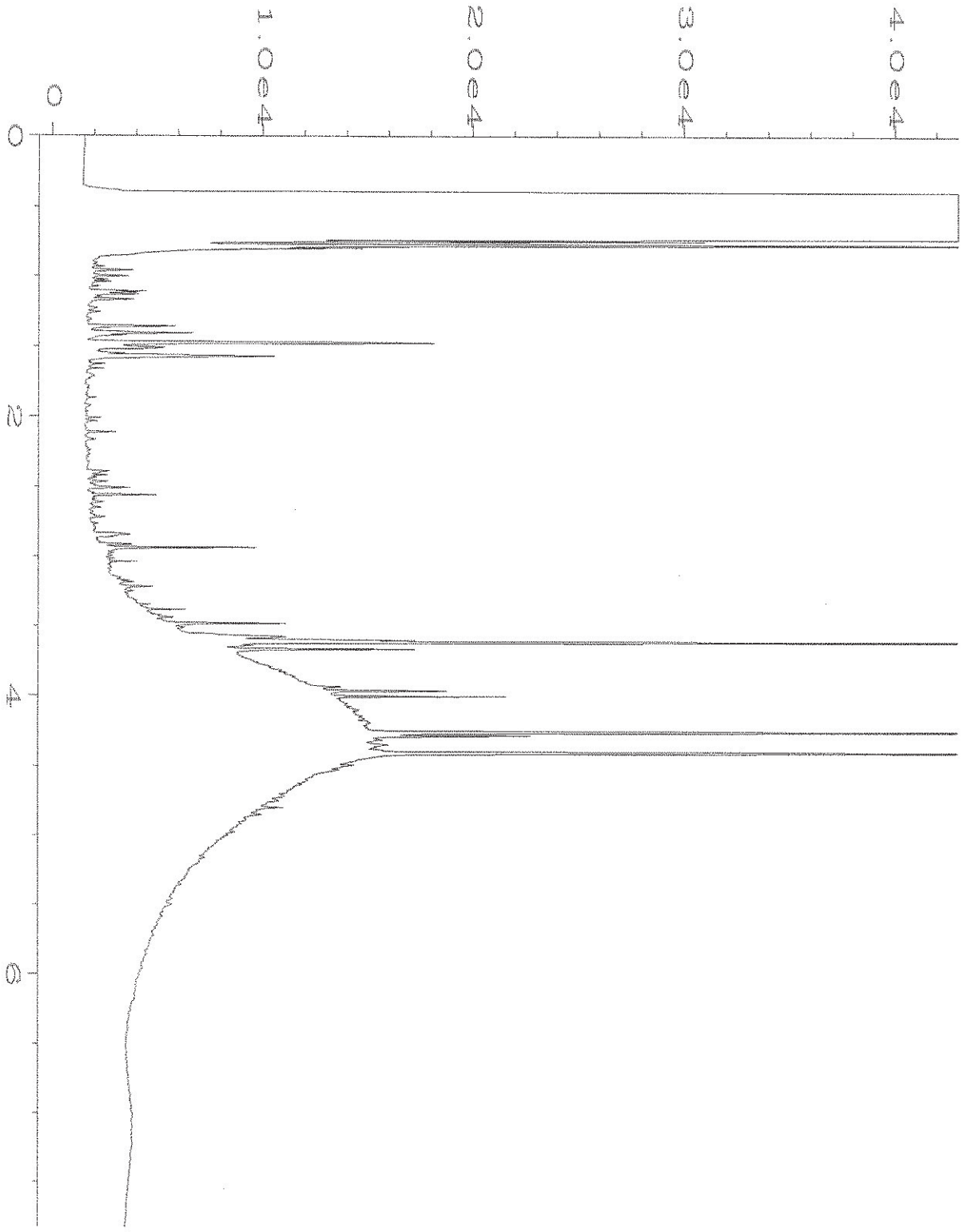
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Operator : TL
Instrument : GC#4
Sample Name : 910503-02
Run Time Bar Code:
Acquired on : 25 Oct 19 03:46 PM
Report Created on: 28 Oct 19 10:02 AM

Page Number : 1
Vial Number : 31
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

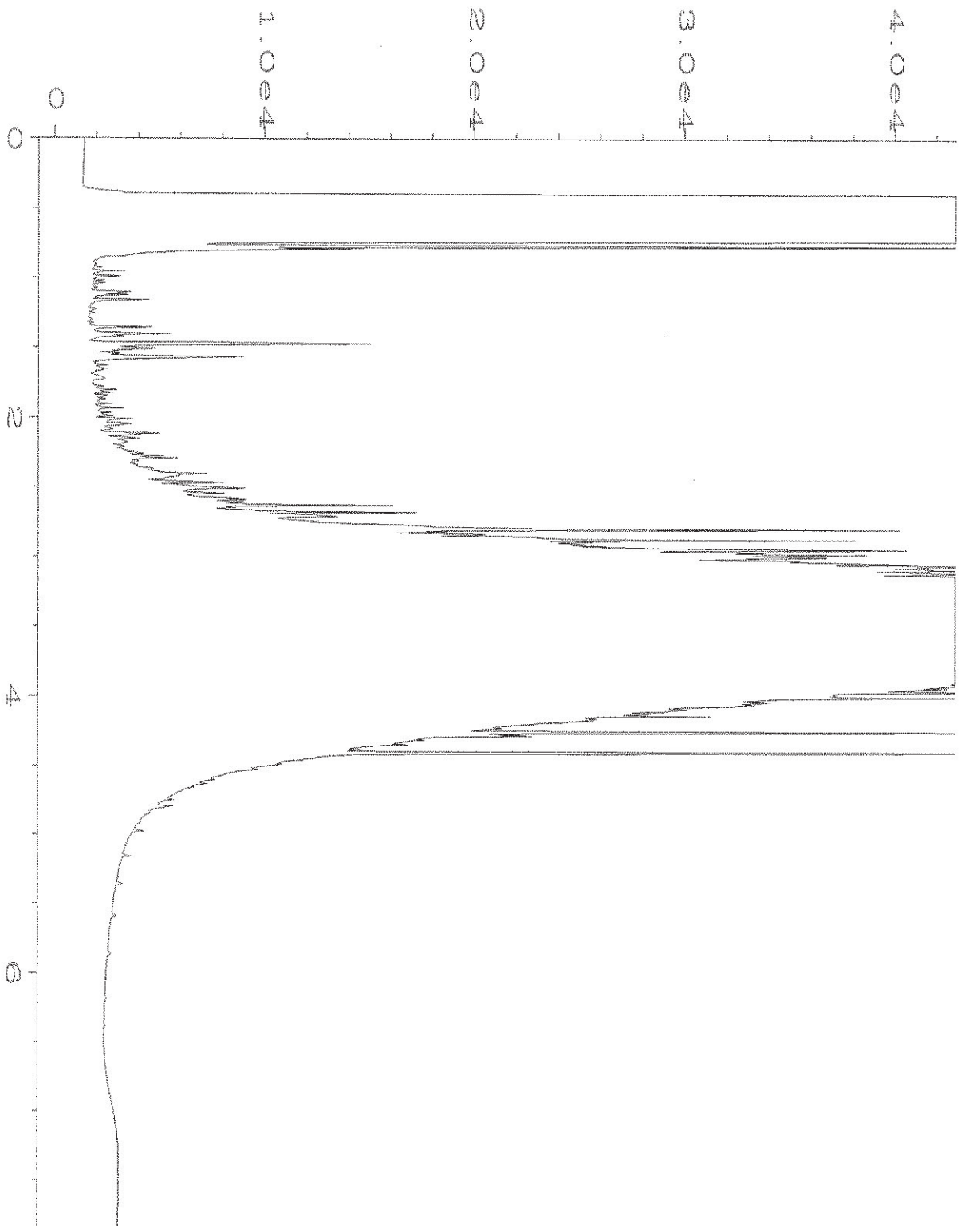


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Sample Name : 910503-02
Run Time Bar Code:
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Report Created on: 28 Oct 19 10:03 AM

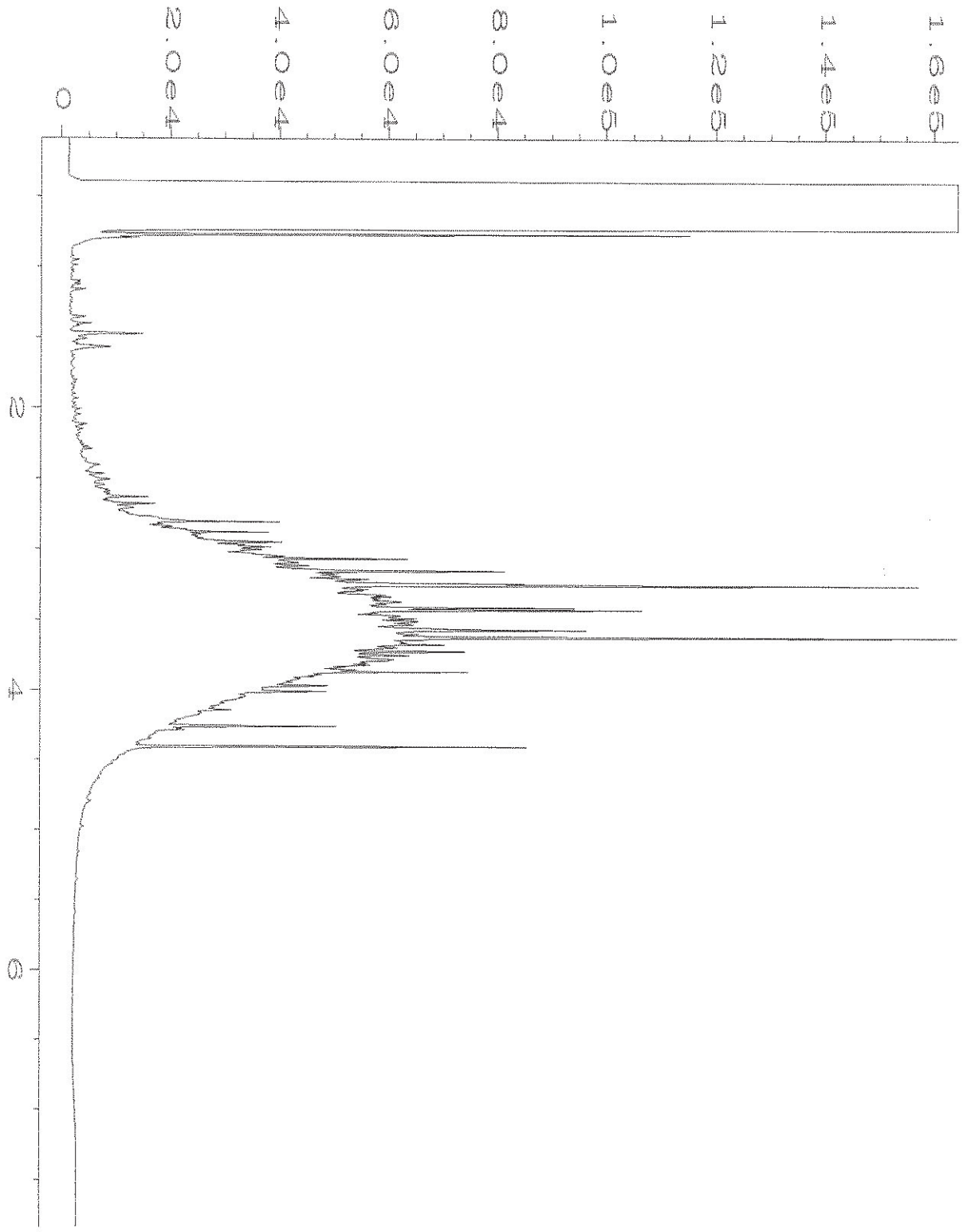
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Injection Number : 1
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Analysis Method : DEFAULT.MTH



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Sample Name	: 910503-03	Injection Number	: 1
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Report Created on	: 28 Oct 19 10:03 AM	Analysis Method	: DEFAULT.MTH

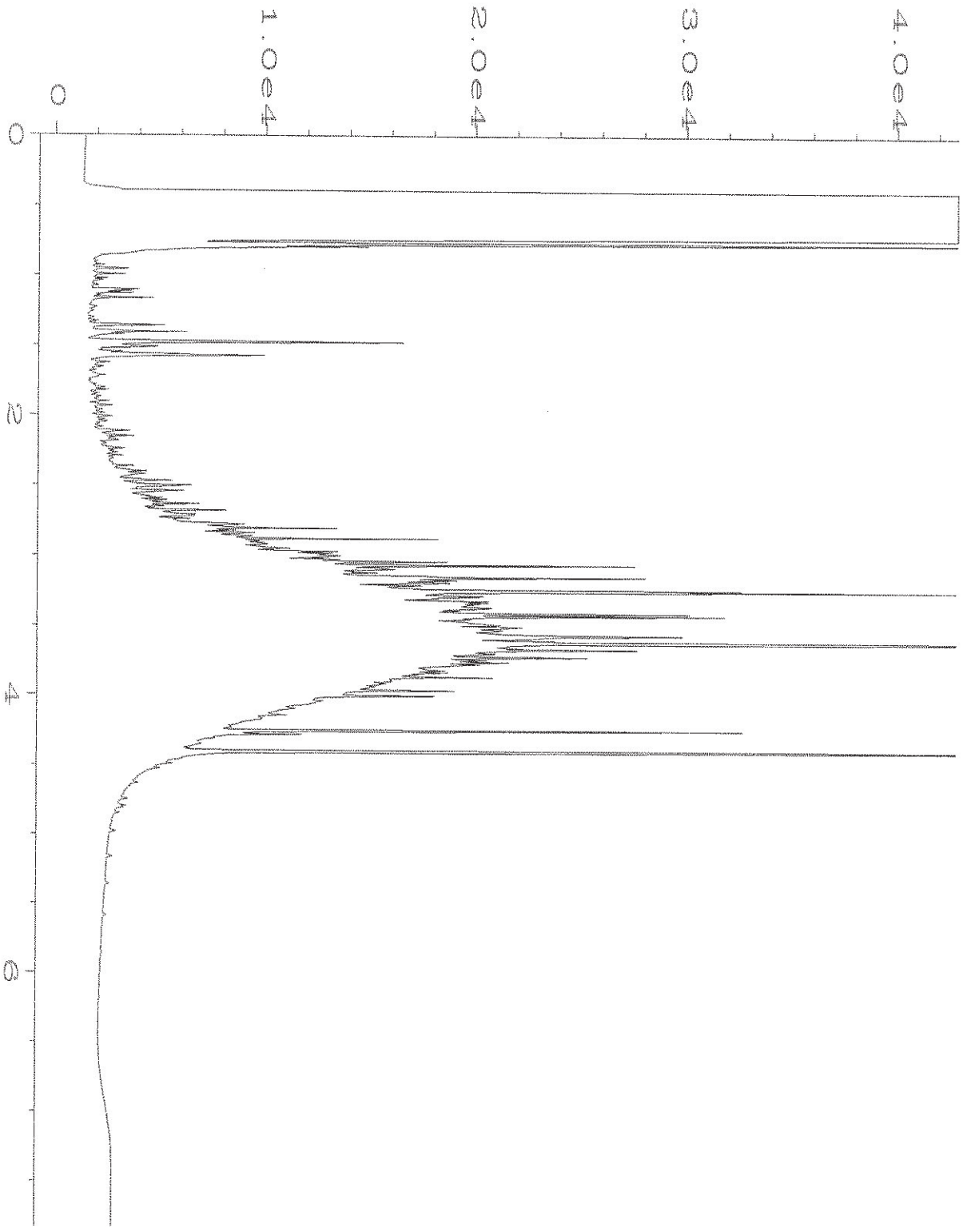


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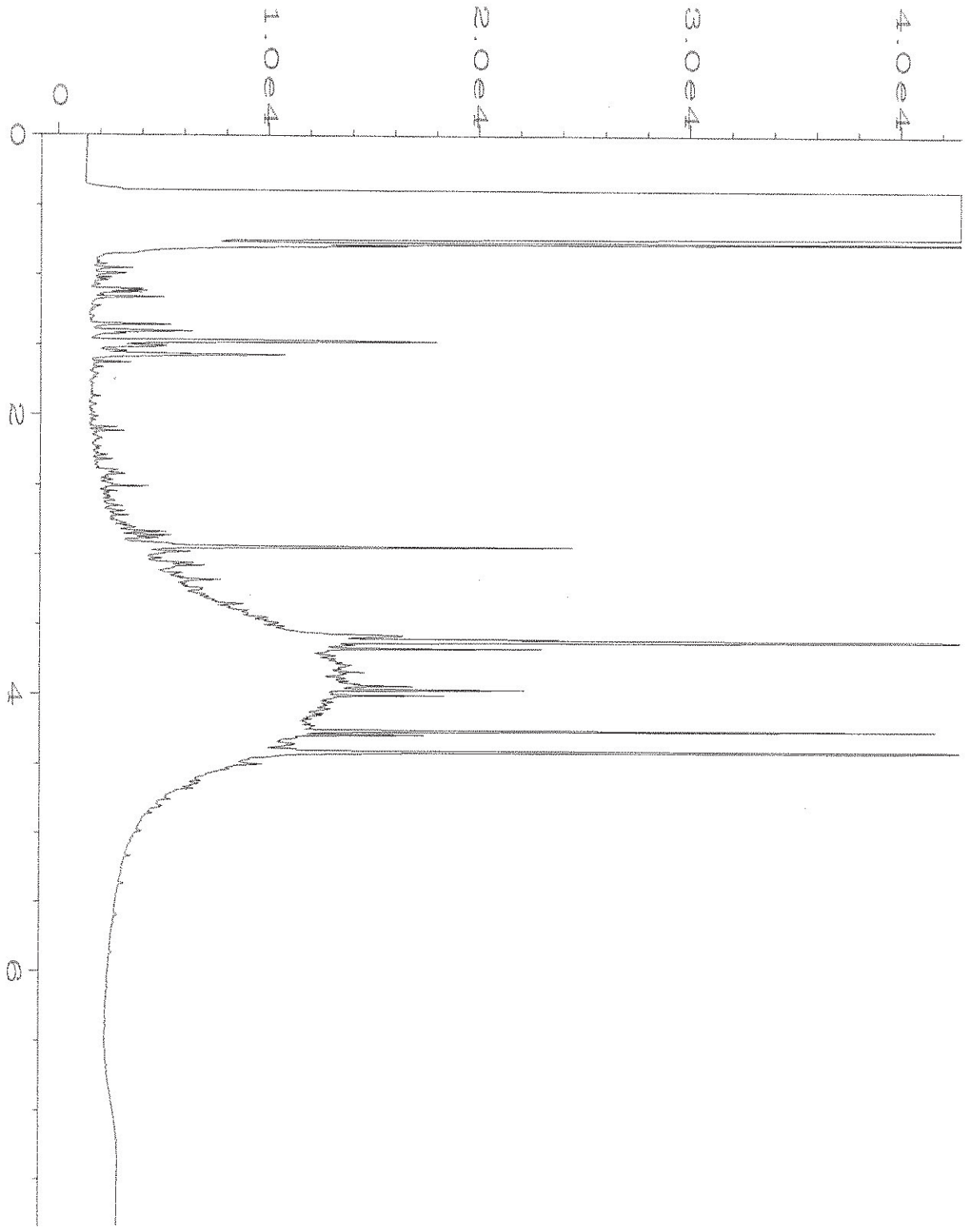


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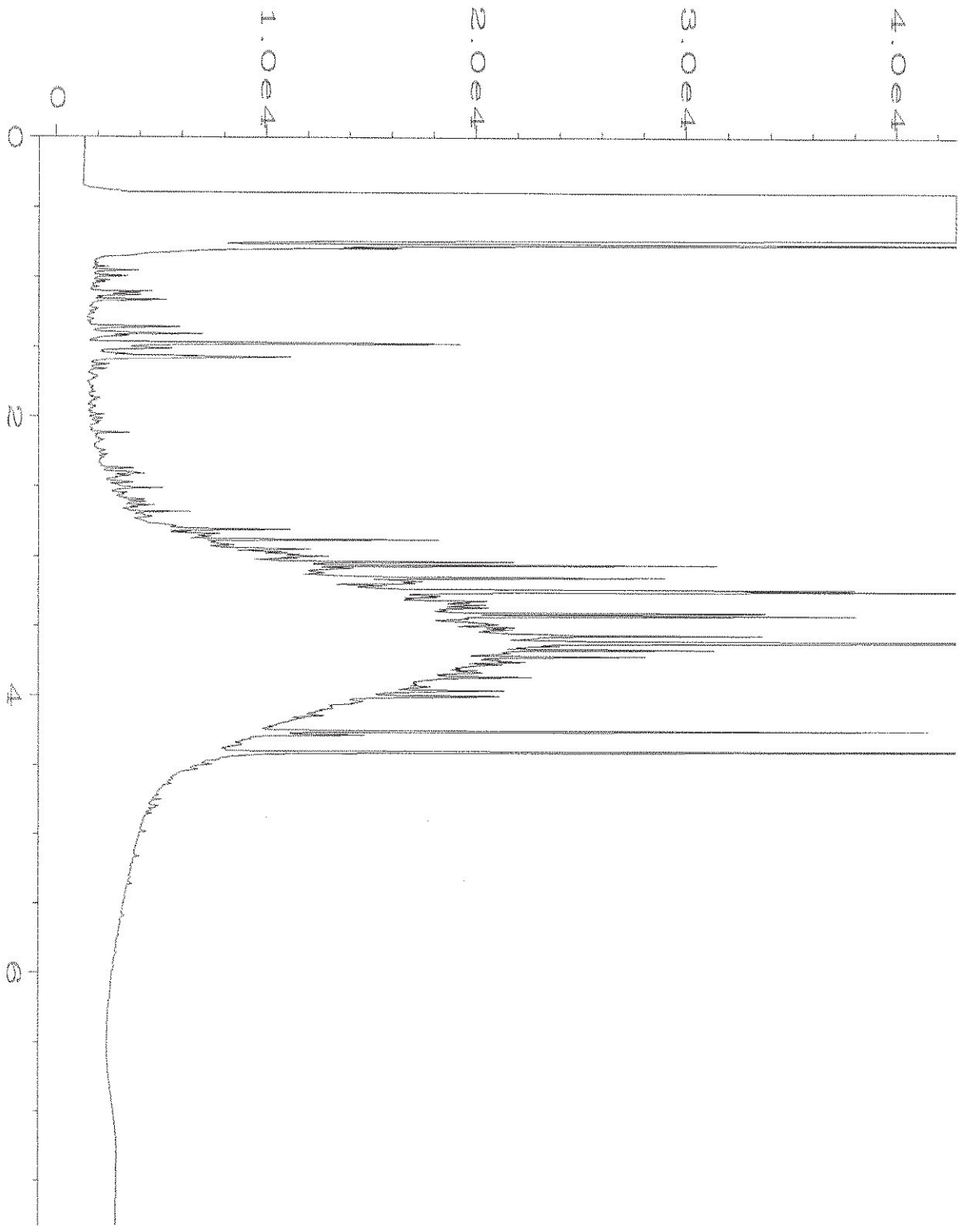
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Injection Number : 1
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Analysis Method : DEFAULT.MTH



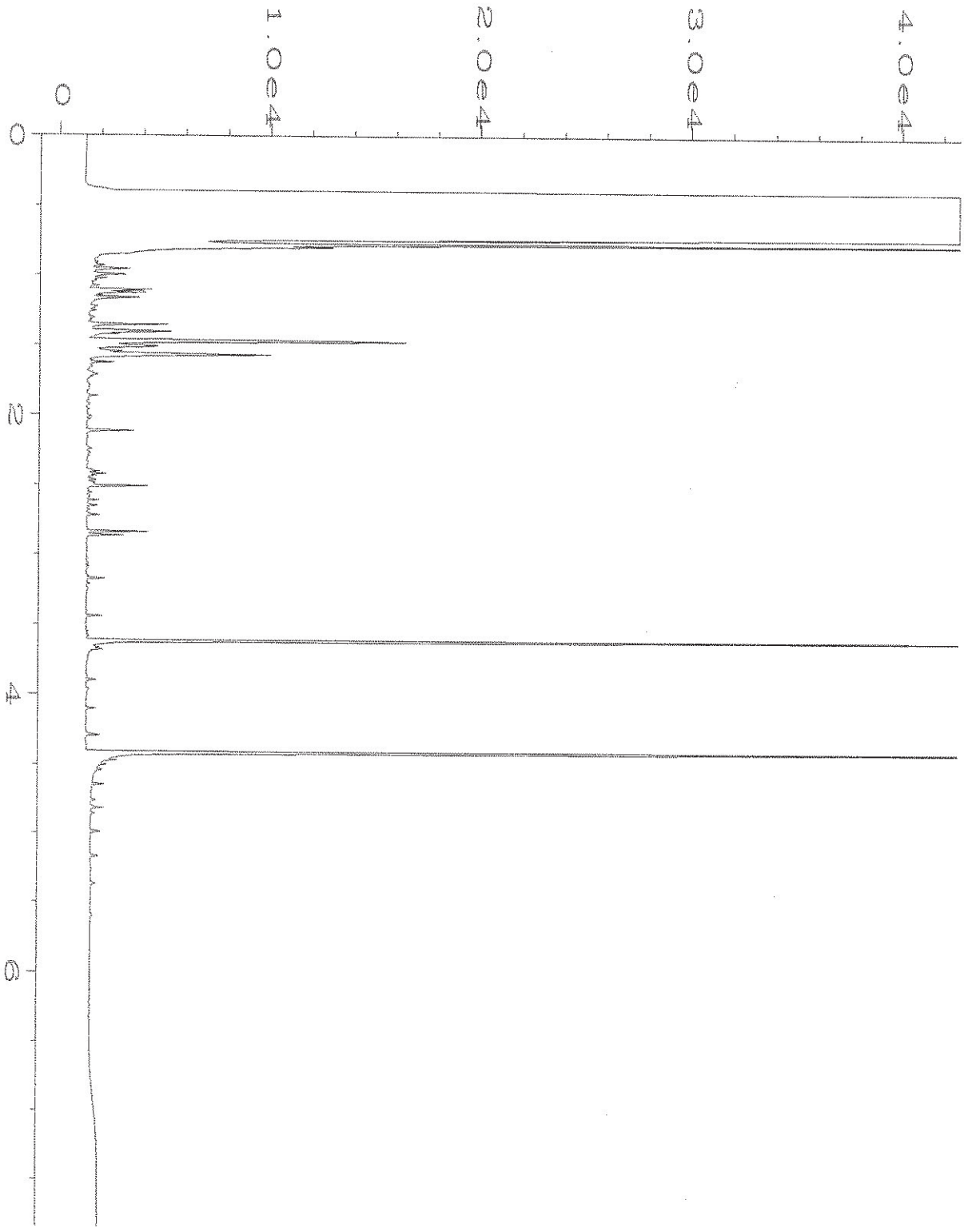
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Sample Name	: 910503-05	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 25 Oct 19 04:22 PM	Instrument Method	: DX.MTH
Report Created on	: 28 Oct 19 10:25 AM	Analysis Method	: DEFAULT.MTH



Data File Name	: C:\HPCHEM\4\DATA\10-25-19\035F0701.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 35
Sample Name	: 910503-06	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 25 Oct 19 04:34 PM	Instrument Method	: DX.MTH
Report Created on	: 28 Oct 19 10:04 AM	Analysis Method	: DEFAULT.MTH

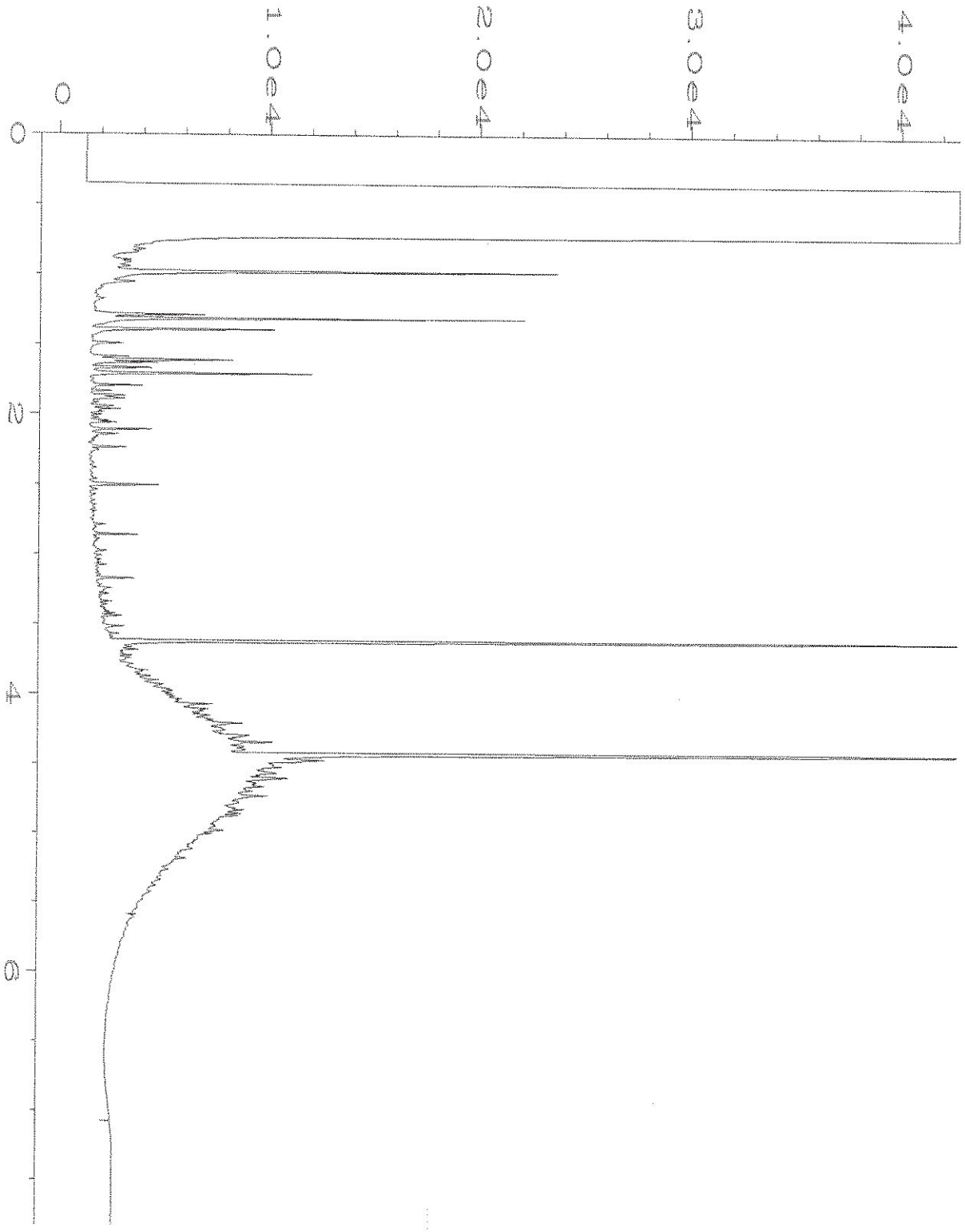


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Instrument	: GC#4	Vial Number	: 36
Sample Name	: 910503-07	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 25 Oct 19 04:46 PM	Instrument Method	: DX.MTH
Report Created on	: 28 Oct 19 10:04 AM	Analysis Method	: DEFAULT.MTH



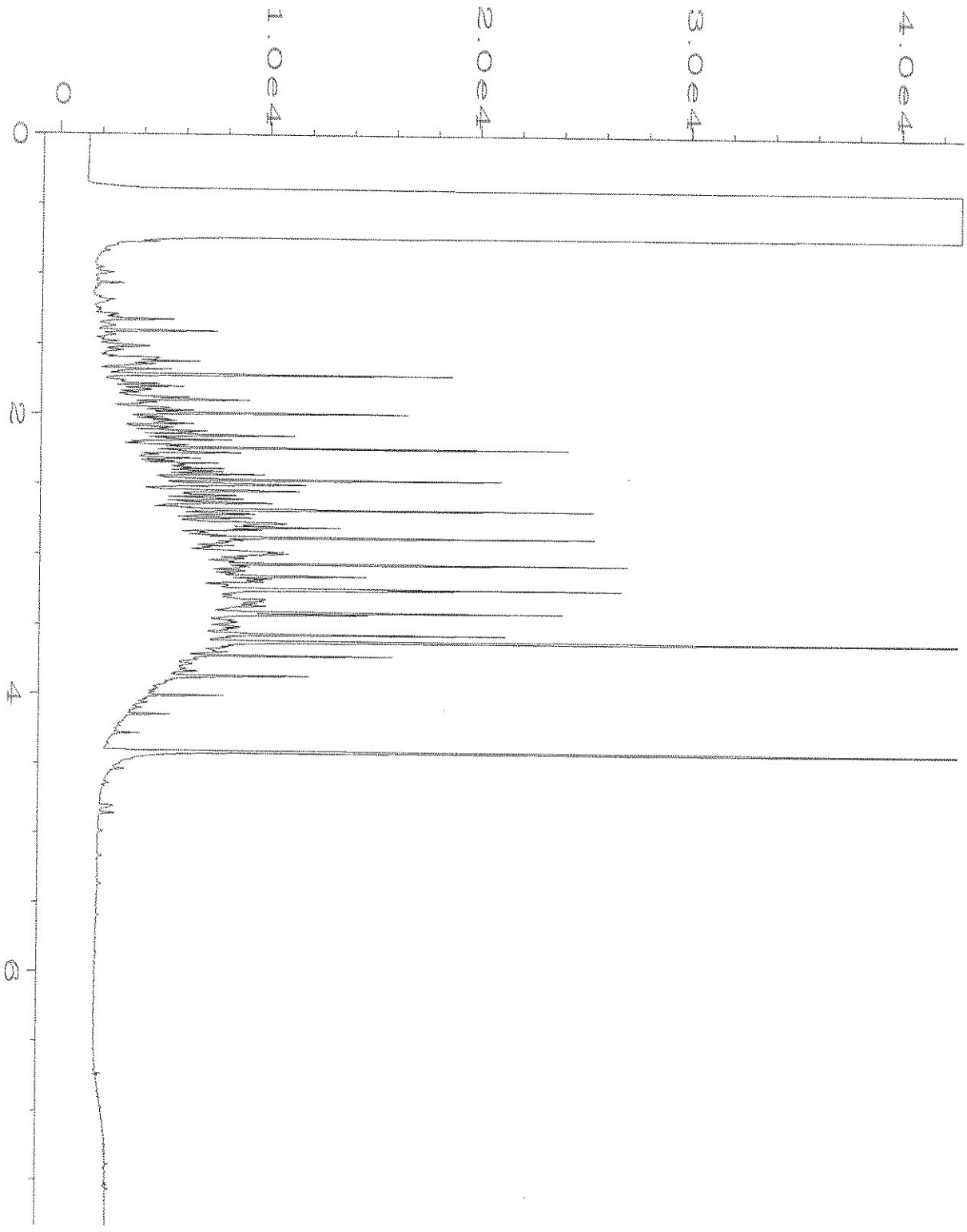
Data File Name : C:\HPCHEM\4\DATA\10-25-19\027F0501.D
Operator : TL
Instrument : GC#4
Sample Name : 09-2653 mb
Run Time Bar Code:
Acquired on : 25 Oct 19 02:13 PM
Report Created on: 28 Oct 19 10:01 AM

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\4\DATA\10-25-19\098F0901.D
Operator : TL
Instrument : GC#4
Sample Name : HCIDw G/M 56-124
Run Time Bar Code:
Acquired on : 25 Oct 19 06:06 PM
Report Created on: 28 Oct 19 10:05 AM

Page Number : 1
Vial Number : 98
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\4\DATA\10-25-19\099F0901.D
Operator : TL
Instrument : GC#4
Sample Name : HCIDw Dx 58-62D
Run Time Bar Code:
Acquired on : 25 Oct 19 06:16 PM
Report Created on: 28 Oct 19 10:05 AM

Page Number : 1
Vial Number : 99
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

910503

SAMPLE CHAIN OF CUSTODY

ME 10/25/19 Page # 1 of 1 | 1 of 1 | 1 of 1

Send Report To Corey League

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Ave East, Suite 2000

City, State, ZIP Seattle, WA 98102

Phone # 206-431-5919 Fax # —

SAMPLERS (signature)

PROJECT NAME/NO. 0995-002

PO #

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☑ RUSH 24 HR

Rush charges authorized by: C. League

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☑ Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOC's by 8260	SVOC's by 8270	RCRA-8 Metals	HCID		Notes
UST-27-20191024	UST-27	—	01A-E	10/24/19	1315	Water	5							X		
UST-28-20191024	UST-28	—	02	10/24/19	1255	Water	5							X		
UST-29-20191024	UST-29	—	03	10/24/19	1235	Water	5							X		
UST-31-20191024	UST-31	—	04	10/24/19	1215	Water	5							X		
UST-32-20191024	UST-32	—	05	10/24/19	1148	Water	5							X		
UST-33-20191024	UST-33	—	06	10/24/19	1120	Water	5							X		
UST-34-20191024	UST-34	—	07	10/24/19	1050	Water	5							X		

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Corey League	SoundEarth	10/24/19	1745
Received by:	Nhan Phan	FEBT	10/25/19	1000
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

DANGEROUS WASTE DESIGNATION FORM

A. WASTE STREAM NAME AND GENERATION INFORMATION

Waste Stream Name: Area-Wide Dust

Generation Process: This material is a mixture of dust, fine particulates, soil "track-in" and exposed soil that accumulated throughout the facility over many years of operation. The material is not a waste stream that was generated from any one process or unit operation.

RCRA ID Number that waste will be managed under:	**Total Quantity and/or Estimated Generation rate:**
Star Forge LLC, DBA Jorgenson Forge: WAD000602813 **Other Descriptions (i.e. Shop, Project, Etc.):**	Estimated 1-2 tons remaining on-site primarily on the floor of the main structure.

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☒Solid (pass paint filter)
- ☐Solid w/freestanding or absorbed liquid
- ☐Liquid (If liquid, indicate if the liquid is:
  - ☐Single Layer
  - ☐Multi-layer

pH:
- ☐< 2 **[D002]**
- ☐> 2 but < 12.5
- ☒N/A
- ☐> 12.5 **[D002]**

Flashpoint:
- ☐< 140 °F **[D001]**
- ☐> 140 °F but < 200 °F
- ☒N/A
- ☐> 200 °F

Characteristic

- ☐Ignitable **[D001]**
- ☐Corrosive **[D002]**
- ☐Reactive **[D003]**
- ☐Toxic **[D004 – D043]**

List Here: None

PCB Content

- ☐Not Detected **[non TSCA or State Regulated]**
- ☐Not Sampled
- ☐≥ 2 ppm and < 50 ppm **[Potentially TSCA Regulated or State Regulated PCB Waste-WPCB]**
- ☐≥ 50 ppm **[TSCA Regulated]**
- ☒< 1 ppm

Note:
IF WASTE STREAM IS BEING MANAGED AS TSCA WASTE, DO NOT USE WPCB STATE CODE PER WAC 173-303-071(3)(k)

TCLP Metals

- ☐Arsenic ≥ 5.0 mg/L **[D004]**
- ☐Barium ≥ 100.0 mg/L **[D005]**
- ☐Cadmium ≥ 1.0 mg/L **[D006]**
- ☐Chromium ≥ 5.0 mg/L **[D007]**
- ☐Lead ≥ 5.0 mg/L **[D008]**
- ☐Mercury ≥ 0.2 mg/L **[D009]**
- ☐Selenium ≥ 1.0 mg/L **[D010]**
- ☐Silver ≥ 5.0 mg/L **[D011]**

Check if:
- ☐Assumed
- ☒TCLP Conducted
- ☐TCLP Not Conducted

Comments: TCLP conducted on all RCRA Metals. All samples passed TCLP.

Total Metals
☒mg/kg ☐ug/kg ☐mg/L ☐ug/L

Arsenic:	110	☐ND
Barium:	1900	☐ND
Cadmium:	46	☐ND
Chromium:	70000	☐ND
Lead:	4200	☐ND
Mercury:	0.58	☐ND
Selenium:	27	☐ND
Silver:	ND	☐ND
Copper:	3200	☐ND
Nickel:	13000	☐ND
Zinc:	8500	☐ND

Comments: Total metals data represents the highest metals concentration across all 22 samples.

Physical Composition (list all constituents, including debris, any absorbents, liquid range, etc.).

Constituent	**Volume (Range %)**
Dust	80-98
Soil	1-10
Fine Particles (metal, concrete, wood, plastic, etc.)	1-10

C. LISTED WASTE

☐ **Discarded Listed Chemical Product (U or P List):**
☐ **Listed Source Waste (F or K List):**
☒ **Not Applicable:**

D. WA STATE CRITERIA WASTE

☐**Not applicable per WAC 173-303-070(5): Further designation will not change the generator status or change the way the waste must be managed.**

WA Toxic Criteria Equivalent Concentration (E.C):		WA Persistent Criteria Total HOC		WA Persistent Criteria Total PAH	
☐ < 0.001 %	[not a Toxic Criteria DW]	☒ < 0.01 %	[NOT APPLICABLE]	☒ < 1.0%	[NOT APPLICABLE]
☒ 0.001 ≥ 1.0 %	[WT02 – DW]	☐ 0.01 to 1.0%	[WP02 – DW]	☐ > 1.0%	[WP03 – EHW]
☐ ≥ 1.0%	[WT01 – EHW]	☐ > 1.0 %	[WP01 – EHW]		

DW: Dangerous Waste EHW: Extremely Hazardous Waste HOC: Halogenated Organic Compounds PAH: Polycyclic Aromatic Hydrocarbons

E. ADDITIONAL INFORMATION (Describe any additional information about the waste (e.g. process knowledge statement, regulatory exemptions, assumptions made, etc.)

The interior of the main structure comprises the former melt shop, forge shop, and the heat treat area. Star Forge conducted extensive removal of dust, fine particles, and exposed soil (henceforth "area wide dust") from the floor, trusses, and other structural surfaces during 2019 to early 2020. The area wide dust has been referred to as process waste in previous documents and correspondence. This material is a mixture of dust, fine particulates, soil "track-in" and exposed soil that accumulated throughout the facility over many years of operation. The material is not a waste stream that was generated from any one process or unit operation.

Previous designation of this material is based on total metals, TCLP metals and total PCBs. This waste stream previously "passed" TCLP for RCRA 8 metals. However, the total metals content caused the area-wide dust to "book designate" as a Toxic Criteria Dangerous Waste and was assigned WA State Dangerous Waste number WT02. A fish bioassay was not conducted to refute the book designation; therefore, the WT02 designation was assumed and approximately 2,500,000 lbs of the area wide dust was removed and disposed of as WA State Toxic Criteria waste during 2019 and early 2020.

Although most of the area wide dust has been removed from the facility interior, some of this material remains on the floor of the facility and has possibly comingled with areas of exposed soil. Therefore, an area wide statistical analysis of the dust, fine particles, and exposed soil was conducted to designate the remaining material so that it can be properly managed during the forthcoming demolition of the structures.

The statistical evaluation of the area wide dust was conducted using Visual Sample Plan (VSP); a statistical software package developed by the Pacific Northwest National Laboratory. VSP integrates data quality objectives into a defensible sampling design and conducts the required calculations for sample size and sample location. The required sample size estimated by VSP is based on several variables including the constituent estimated concentration standard deviation, regulatory threshold, and desired confidence level.

The sample design for the area wide sampling incorporated 22 sample locations chosen randomly on a grid generated by VSP. All samples were analyzed for volatiles by EPA Method 8260, PCBs by EPA Method 8082A, Total RCRA Metals + Copper, Nickel, and Zinc, and TCLP RCRA 8 metals.

Based on the statistical analysis, the mean TCLP concentration of all RCRA 8 metals were below their respective thresholds for the toxicity characteristic. In addition, the mean PCB concentration of the area wide dust and fine particles was shown to be 0.83 mg/kg. Analysis did identify low level trace VOCs listed in 40 CFR 261.31 (and WAC 173-303-9904), Wastes from Non-Specific Sources. The concentration of VOCs did not approach TCLP volatiles characteristic levels and none of the original processes generating any of the trace constituents in question are known therefore RCRA F Series is not applicable.

After the laboratory results were received, A Washington State Toxic Criteria book designation calculation was performed for each of the 22 samples taken throughout the facility. All samples had an Equivalent Concentration (EC) between 0.001% and 1.0%, resulting in a book designation of Toxic, WT02. This book designation was refuted by a follow-up fish bioassay in accordance with WAC 173-303-110(3)(b). The two area wide samples with the highest EC calculation were selected for fish bioassay analysis by Ecology Method 80-1, Biological Testing Methods for the Designation of Dangerous Waste. The fish bioassays resulted in zero fish mortality and therefore the WT02 designation was refuted.

Based on the statistical analysis of total metals, TCLP metals, PCBs and VOCs, the area wide dust has been designed as Non-Dangerous Solid Waste. Further details about the sampling plan design are included in the SAP. In addition, the designation package for the area wide dust is included in Attachment X. This designation is meant to apply to dust, fine particles, and above ground exposed soil remaining in the forge Shop, melt shop, and heat treat shop areas in the main facility structure. During the course of demolition and site stabilization, this media may need to be removed and disposed of off-site for several reasons including stormwater pollutant source control, dust control, and surface preparation for asphalt application to stabilize areas of exposed soil.

Attachments:
☒**Field Report**
☒**Photo Log**
☒**Laboratory Data** (OnSite Environmental Lab Report 2006-002, 2006-002B)
☒**Dangerous Waste Toxic Equivalent Concentration Calculation**
☒**Biological Testing Method 80-12 (Fish Bioassay)**
☒**Other: Visual Sample Plan Output**

F. WASTE DESIGNATION SUMMARY

☐ **RCRA Hazardous Waste**
USDOT Proper Shipping Name:
RCRA Waste Codes:

☐ **TSCA Regulated Waste**
TSCA Description:

☒ **Non-Hazardous Solid Waste/RCRA Exempt/RCRA Excluded**
Description: Non-Hazardous Solid Waste

Designation Performed by: Stacy Fox, CHMM
Title: Senior Project Scientist Date: 06-23-2020

Designation Reviewed by: David Hill, PE, CHMM, CPEA
Title: Principal Engineer Date: 06-23-2020

1011 SW Klickitat Way
Suite 107
Seattle, Washington 98134

Field Report

File Name: FR_Area Wide_06012020

	Project: Star Forge Area-Wide Waste Designation Sampling		Date: 6/1/2020
	Owner: Star Forge	Time of Arrival: 0600	Report Number: 1
Prepared by: Nathan Moxley	Location: 8531 E. Marginal Way	Time of Departure: 1130	Page: Page 1 of 2
Purpose of Site Visit: Waste Designation Sampling	Weather: Indoors	Travel/Prep. Time: 3 hr	Project/Contract Number: Work Order 03 – Clean Closure

Upon arrival to the site I assessed personal safety hazards: ☒ Yes or ☒ Referred to Site Safety Plan and Safety Tailgate if applicable
Safety Hazards Were Addressed by : ☒ Performing tool box safety meeting ☒ Donning PPE, and observing safety standards

Site Visit Purpose and Details:

To collect samples across the former Melt Shop, Forge Shop, and southern portions of the Heat Treat Area. Samples are being collected in accordance with the Area-Wide sampling plan, and VSP sample design guidance for random sampling of dust throughout the facility.

Summary of Field Activities:

Nathan Moxley and Brian Johnson of DH Environmental arrived onsite at approximately 0600. Upon arrival we conducted a health and safety tailgate meeting and unloaded sampling equipment. Sampling locations were pre-determined by VSP. Using a measuring wheel, we started locating the sample stations based on the proximity to known site features and using the coordinates of each sample, as provided by VSP.

Adequate dust and/or mixed soil and debris were present at all stations within a few feet of the planned sample location, with the following exceptions:

- Station AW-17 was incorrectly plotted outside of the building footprint in the VSP sample design, approximately 41-feet west of the building. The station was moved approximately 51-feet east from the planned location to fall within the building footprint, and located near a small pile of dust and debris approximately 10-feet east of the western wall of the building.
- Station AW-5 was shifted south against the edge of the building to target a pile of loose metal-like dust.
- Station AW-15 was shifted north against the north edge of the building to target a pile of dust that had accumulated in the corner against a column footing and drain pipe.
- Station AW-16 was shifted ~10-ft west of the planned location to target dust that had accumulated in a recessed trackway in the concrete floor

Following the collection of each sample, the sample location was marked and labeled with marking paint, and a photo taken. Photos are provided in attached photo log.

☒ **THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Field Representative certifies the report was prepared with the intent to portray a true and accurate representation of the work performed or the observations made.	**Field Representative:** Nathan Moxley, LG, LHG	**Date:** 06/01/2020
☐ **THIS FIELD REPORT IS FINAL** This report presents observations and/or a record of field activities of the work performed. The Reviewer certifies the report has been reviewed and is ready for release to the Client to support work product and/or deliverables without exception.	**Reviewed By:** Stacy Fox, CHMM	**Date:** 6/5/2020

This report presents observations and a record of field activities relating to our services only. Other work may have been performed on this project that was not under the direction or guidance of DH Environmental, Inc. Our work did not include supervision or direction of the work of others. DH Environmental, Inc. is not responsible for job or site safety of others on this project. Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by DH Environmental, Inc. and will serve as the official document of record.

ATTACHMENTS:

☒ Site Photos ☐ Sketch ☐ Chain of Custody ☐ Other:
☐ Sample Log ☐ Drawing(s) ☐ Calibration Records

Photo Log
Area Wide Waste Designation Sampling
6/1/2020
Star Forge, Tukwila, Washington



Photo 1: Sample location AW-1.



Photo 2: Sample location AW-2.



Photo 3: Sample location AW-3.



Photo 4: Sample location AW-4.



Photo 5: Sample location AW-5.

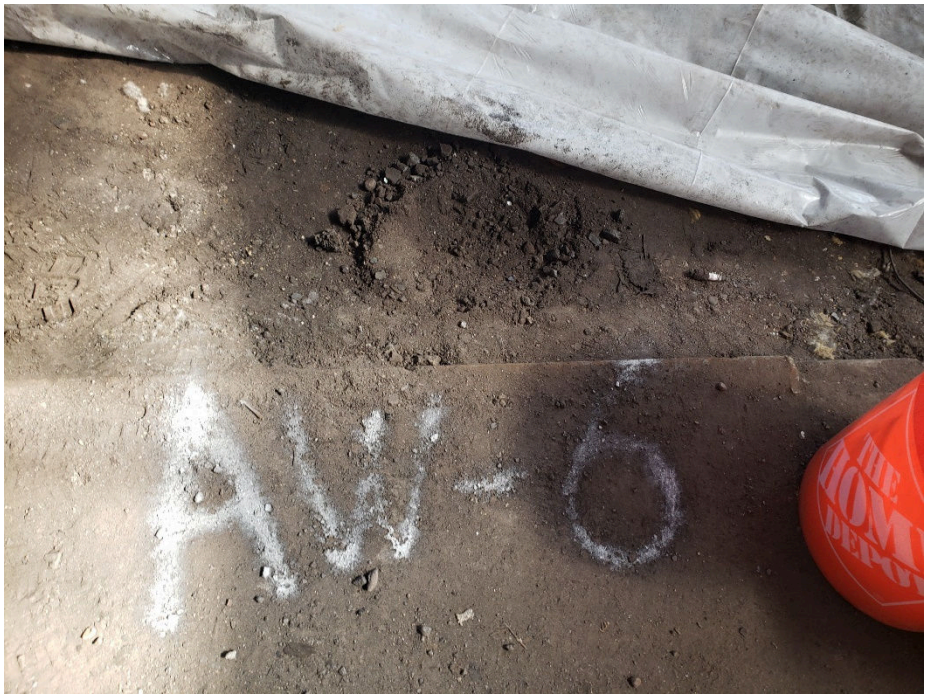


Photo 6: Sample location AW-6.



Photo 7: Sample location AW-7.



Photo 8: Sample location AW-8.



Photo 9: Sample location AW-9.



Photo 10: Sample location AW-10.



Photo 11: Sample location AW-11.



Photo 12: Sample location AW-12.



Photo 13: Sample location AW-13.



Photo 14: Sample location AW-14.



Photo 15: Sample location AW-15.

Photo 16: Sample location AW-16 (no photo).



Photo 17: Sample location AW-17.



Photo 18: Sample location AW-18.



Photo 19: Sample location AW-19.



Photo 20: Sample location AW-20.



Photo 21: Sample location AW-21.



Photo 22: Sample location AW-22.

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-1' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as: mg/kg
Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	17	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.70E-03		
Barium	7440-39-3	90	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	4.2	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	4.20E-04				
Chromium	7440-47-3	2300	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.30E-01	
Copper	7440-50-8	690	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		6.90E-02			
Lead	7439-92-1	1400	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.40E-01	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	2300	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.30E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	390	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			3.90E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.053	LC Rat Inhalation 50.10 mg/kg[1]	D					5.30E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-1' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.082	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**8.20E-06**		
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-1' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0004200**	**0.0690000**	**0.0407082**	**0.3700000**	**0.2300**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	4.20E-04	6.90E-02	4.07E-02	3.70E-01	2.30E-01		
	4.20E-04	6.90E-03	4.07E-04	3.70E-04	2.30E-05	**0.0081201**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-2' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	16	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.60E-03		
Barium	7440-39-3	140	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	2.9	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	2.90E-04				
Chromium	7440-47-3	1100	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				1.10E-01	
Copper	7440-50-8	650	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		6.50E-02			
Lead	7439-92-1	190	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.90E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	710	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					7.10E-02
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	550	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			5.50E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.019	LC Rat Inhalation 50.10 mg/kg[1]	D					1.90E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-2' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	0.0028	LD50 Rat oral 4750 mg/kg[2]	**D**					**2.80E-07**
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.096	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**9.60E-06**		
Aroclor 1268	11096-82-5	0.5	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**5.00E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-2' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0002900**	**0.0650000**	**0.0566596**	**0.1290000**	**0.0710**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.90E-04	6.50E-02	5.67E-02	1.29E-01	7.10E-02		
	2.90E-04	6.50E-03	5.67E-04	1.29E-04	7.10E-06	**0.0074927**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-3' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	50	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**5.00E-03**		
Barium	7440-39-3	99	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	2.8	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**	**2.80E-04**				
Chromium	7440-47-3	5400	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**5.40E-01**	
Copper	7440-50-8	2300	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**2.30E-01**			
Lead	7439-92-1	310	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**3.10E-02**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	6400	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**6.40E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	590	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**5.90E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.045	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**4.50E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	0.0034	LD50 Oral Rat 1200 mg/kg[1]	**D**					**3.40E-07**
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-3' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.28	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**2.80E-05**		
Aroclor 1260	11096-82-5	0.12	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**1.20E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-3' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0002800**	**0.2300000**	**0.0640400**	**0.5710000**	**0.6400**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.80E-04	2.30E-01	6.40E-02	5.71E-01	6.40E-01		
	2.80E-04	2.30E-02	6.40E-04	5.71E-04	6.40E-05	**0.0245554**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-4' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	15	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.50E-03		
Barium	7440-39-3	80	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	2.6	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	2.60E-04				
Chromium	7440-47-3	10000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				1.00E+00	
Copper	7440-50-8	380	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		3.80E-02			
Lead	7439-92-1	150	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.50E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	2600	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.60E-01
Selenium	7782-49-2	16	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					1.60E-03
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	1200	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.20E-01		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-4' (Lab Report 2006-002)
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Sample Date: 06-01-20
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0002600**	**0.0380000**	**0.1215000**	**1.0150000**	**0.2616**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.60E-04	3.80E-02	1.22E-01	1.02E+00	2.62E-01		
	2.60E-04	3.80E-03	1.22E-03	1.02E-03	2.62E-05	**0.0063162**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-5' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	65	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**6.50E-03**		
Barium	7440-39-3	20	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	nd	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	70000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**7.00E+00**	
Copper	7440-50-8	1400	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.40E-01**			
Lead	7439-92-1	110	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**1.10E-02**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	13000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**1.30E+00**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	230	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**2.30E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.038	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**3.80E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	0.0064	LD50 Oral Rat 2737 mg/kg[1]	**D**					**6.40E-07**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.1400000**	**0.0295000**	**7.0110000**	**1.3000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.40E-01	2.95E-02	7.01E+00	1.30E+00		
	0.00E+00	1.40E-02	2.95E-04	7.01E-03	1.30E-04	**0.0214360**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: "AW-6" (Lab Report 2006-002)
Sample Date: 06-01-2020
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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

					Concentration (mass %)				
Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	54	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			5.40E-03		
Barium	7440-39-3	60	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	0.54	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	5.40E-05				
Chromium	7440-47-3	2000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.00E-01	
Copper	7440-50-8	1200	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.20E-01			
Lead	7439-92-1	200	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.00E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	3800	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					3.80E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	260	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			2.60E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					

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Waste Stream: Dust
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(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					
1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	0.13	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B			**1.30E-05**		
Aroclor 1268	11096-82-5	0.085	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B			**8.50E-06**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	0.047	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C				**4.70E-06**	
2-methylnaphthalene	91-57-6	0.085	1630 mg/kg Oral Rat LD50[2]	D					**8.50E-06**
1-methylnaphthalene	90-12-0	0.061	1840 mg/kg Oral Rate LD50[2]	D					**6.10E-06**
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	0.036	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C				**3.60E-06**	
Fluorene	86-73-7	0.067	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B			**6.70E-06**		
Phenanthrene	85-01-8	0.25	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A		**2.50E-05**			

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Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					
Fluoranthene	206-44-0	0.11	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C				1.10E-05	
Pyrene	129-00-0	0.15	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C				1.50E-05	
Benzo(a)anthracene	56-55-3	0.053	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				5.30E-06	
Chrysene	218-01-9	0.1	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				1.00E-05	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.082	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				8.20E-06	
Benzo(a)pyrene	50-32-8	0.039	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				3.90E-06	
Indeno(1,2,3-cd)pyrene	193-39-5	0.038	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				3.80E-06	
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	0.041	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				4.10E-06	
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[2]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000540**	**0.1200250**	**0.0314282**	**0.2200696**	**0.3800**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	5.40E-05	1.20E-01	3.14E-02	2.20E-01	3.80E-01		
	5.40E-05	1.20E-02	3.14E-04	2.20E-04	3.80E-05	**0.0126289**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: "AW-6" (Lab Report 2006-002)
Sample Date: 06-01-2020
Book Designation by: Stacy Fox

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-7' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	19	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**1.90E-03**		
Barium	7440-39-3	86	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	2300	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.30E-01**	
Copper	7440-50-8	630	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**6.30E-02**			
Lead	7439-92-1	130	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**1.30E-02**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	3500	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**3.50E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	170	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.70E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	**D**					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg[1]	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.0630000**	**0.0189000**	**0.2430000**	**0.3500**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	6.30E-02	1.89E-02	2.43E-01	3.50E-01		
	0.00E+00	6.30E-03	1.89E-04	2.43E-04	3.50E-05	**0.0067670**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-8 (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	55	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			5.50E-03		
Barium	7440-39-3	160	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	33	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	3.30E-03				
Chromium	7440-47-3	5900	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				5.90E-01	
Copper	7440-50-8	2200	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.20E-01			
Lead	7439-92-1	4200	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				4.20E-01	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	3700	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					3.70E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	8500	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			8.50E-01		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-8 (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-8 (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0033000**	**0.2200000**	**0.8555000**	**1.0100000**	**0.3700**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	3.30E-03	2.20E-01	8.56E-01	1.01E+00	3.70E-01		
	3.30E-03	2.20E-02	8.56E-03	1.01E-03	3.70E-05	**0.0349020**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-9' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	45	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**4.50E-03**		
Barium	7440-39-3	97	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	6.5	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**	**6.50E-04**				
Chromium	7440-47-3	4000	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**4.00E-01**	
Copper	7440-50-8	1900	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.90E-01**			
Lead	7439-92-1	410	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**4.10E-02**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	5800	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**5.80E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	400	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**4.00E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	0.0095	LD50 Oral Rat 352 mg/kg[1]	**C**				**9.50E-07**	
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.010	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**1.00E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-9' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	D					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	C					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	D					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	D					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	C					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	C					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	C					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	D					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	C					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	C					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	C					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	A					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	C					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	D					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	D					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	C					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	C					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	D					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	D					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	D					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	D					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	C					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	D					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	D					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	D					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	C					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	C					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	D					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	C					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	D					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	C					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	C					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	D					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	B					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	C					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	C					
Aroclor 1242	53469-21-9	0.078	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	A		**7.80E-06**			
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	A					
Aroclor 1254	11097-69-1	0.23	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	B			**2.30E-05**		
Aroclor 1268	11096-82-5	0.39	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	B			**3.90E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	C					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	D					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	D					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	C					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	B					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	A					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	X					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-9' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0006500**	**0.1900078**	**0.0445620**	**0.4410010**	**0.5800**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	6.50E-04	1.90E-01	4.46E-02	4.41E-01	5.80E-01		
	6.50E-04	1.90E-02	4.46E-04	4.41E-04	5.80E-05	**0.0205954**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-10' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	29	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			2.90E-03		
Barium	7440-39-3	13	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	4200	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				4.20E-01	
Copper	7440-50-8	2800	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.80E-01			
Lead	7439-92-1	84	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				8.40E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	8600	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					8.60E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	120	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.20E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-10' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-10' (Lab Report 2006-002, 2006-002B)
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.2800000**	**0.0149000**	**0.4284000**	**0.8600**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.80E-01	1.49E-02	4.28E-01	8.60E-01		
	0.00E+00	2.80E-02	1.49E-04	4.28E-04	8.60E-05	**0.0286634**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-11' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	23	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**2.30E-03**		
Barium	7440-39-3	48	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**					
Chromium	7440-47-3	8800	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**8.80E-01**	
Copper	7440-50-8	1400	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.40E-01**			
Lead	7439-92-1	66	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**6.60E-03**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	6600	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**6.60E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	170	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**1.70E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	**D**					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	**D**					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	**D**					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-11' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.1400000**	**0.0193000**	**0.8866000**	**0.6600**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.40E-01	1.93E-02	8.87E-01	6.60E-01		
	0.00E+00	1.40E-02	1.93E-04	8.87E-04	6.60E-05	**0.0151456**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-12' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	19	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.90E-03		
Barium	7440-39-3	140	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	2.2	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	2.20E-04				
Chromium	7440-47-3	9400	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				9.40E-01	
Copper	7440-50-8	1100	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.10E-01			
Lead	7439-92-1	220	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.20E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	2400	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.40E-01
Selenium	7782-49-2	27	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					2.70E-03
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	620	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			6.20E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-12' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	0.018	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**				**1.80E-06**	
2-methylnaphthalene	91-57-6	0.0093	1630 mg/kg Oral Rat LD50[2]	**D**					**9.30E-07**
1-methylnaphthalene	90-12-0	ND	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	ND	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	0.051	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**		**5.10E-06**			
Anthracene	120-12-7	ND	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-12' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	0.065	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C				6.50E-06	
Pyrene	129-00-0	0.038	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C				3.80E-06	
Benzo(a)anthracene	56-55-3	0.015	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.50E-06	
Chrysene	218-01-9	0.038	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C				3.80E-06	
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	0.026	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				2.60E-06	
Benzo(a)pyrene	50-32-8	0.013	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.30E-06	
Indeno(1,2,3-cd)pyrene	193-39-5	0.013	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.30E-06	
Dibenz(a,h)anthracene	53-70-3	ND	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	0.015	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C				1.50E-06	
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0002200**	**0.1100051**	**0.0639000**	**0.9620241**	**0.2427**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.20E-04	1.10E-01	6.39E-02	9.62E-01	2.43E-01		
	2.20E-04	1.10E-02	6.39E-04	9.62E-04	2.43E-05	**0.0128458**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-13' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	37	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			3.70E-03		
Barium	7440-39-3	57	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	4700	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				4.70E-01	
Copper	7440-50-8	1500	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.50E-01			
Lead	7439-92-1	110	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.10E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	7400	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					7.40E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	170	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.70E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.024	LC Rat Inhalation 50.10 mg/kg[1]	D					2.40E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-13' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.079	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**7.90E-06**		
Aroclor 1268	11096-82-5	0.16	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**1.60E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-13' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.1500000**	**0.0207239**	**0.4810000**	**0.7400**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	1.50E-01	2.07E-02	4.81E-01	7.40E-01		
	0.00E+00	1.50E-02	2.07E-04	4.81E-04	7.40E-05	**0.0157622**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-14' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	15	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.50E-03		
Barium	7440-39-3	150	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	3.3	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	3.30E-04				
Chromium	7440-47-3	2700	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.70E-01	
Copper	7440-50-8	510	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		5.10E-02			
Lead	7439-92-1	190	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.90E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	1700	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.70E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	290	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			2.90E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.044	LC Rat Inhalation 50.10 mg/kg[1]	D					4.40E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	0.0079	LD50 Oral Rat 2737 mg/kg[1]	D					7.90E-07
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0003300**	**0.0510000**	**0.0305000**	**0.2890000**	**0.1700**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	3.30E-04	5.10E-02	3.05E-02	2.89E-01	1.70E-01		
	3.30E-04	5.10E-03	3.05E-04	2.89E-04	1.70E-05	**0.0060410**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-15' (Lab Report 2006-002)
Sample Date: 06-01-20
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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	41	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			4.10E-03		
Barium	7440-39-3	680	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	46	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	4.60E-03				
Chromium	7440-47-3	4200	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				4.20E-01	
Copper	7440-50-8	1700	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.70E-01			
Lead	7439-92-1	2400	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.40E-01	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	3200	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					3.20E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	17	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X	1.70E-03				
Zinc	7440-66-6	3200	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			3.20E-01		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	0.11	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**		**1.10E-05**			
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.99	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**9.90E-05**		
Aroclor 1260	11096-82-5	0.23	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**2.30E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-15' (Lab Report 2006-002)
Sample Date: 06-01-20
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0063000**	**0.1700110**	**0.3242220**	**0.6600000**	**0.3200**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	6.30E-03	1.70E-01	3.24E-01	6.60E-01	3.20E-01		
	6.30E-03	1.70E-02	3.24E-03	6.60E-04	3.20E-05	**0.0272353**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-16' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	42	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			4.20E-03		
Barium	7440-39-3	83	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	6.4	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	6.40E-04				
Chromium	7440-47-3	7700	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				7.70E-01	
Copper	7440-50-8	3200	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		3.20E-01			
Lead	7439-92-1	300	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				3.00E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	8000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					8.00E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	990	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			9.90E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	0.011	LD50 Oral Rat 1200 mg/kg[1]	D					1.10E-06
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-16' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.42	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**4.20E-05**		
Aroclor 1268	11096-82-5	0.37	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**3.70E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-16' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0006400**	**0.3200000**	**0.1032790**	**0.8000000**	**0.8000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	6.40E-04	3.20E-01	1.03E-01	8.00E-01	8.00E-01		
	6.40E-04	3.20E-02	1.03E-03	8.00E-04	8.00E-05	**0.0345528**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-20' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	110	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.10E-02		
Barium	7440-39-3	300	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	7.2	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	7.20E-04				
Chromium	7440-47-3	2800	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.80E-01	
Copper	7440-50-8	2600	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.60E-01			
Lead	7439-92-1	820	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				8.20E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	1900	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					1.90E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	1700	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.70E-01		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.10	LC Rat Inhalation 50.10 mg/kg[1]	D					1.00E-05
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	0.0012	LD50 Oral Rat 1200 mg/kg[1]	D					1.20E-07
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	0.017	LD50 Oral Rat 2737 mg/kg[1]	D					1.70E-06
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	0.00091	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C				9.10E-08	
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	0.0050	LD50 Rat oral 4600 mg/kg[2]	D					5.00E-07
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-20' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	0.0057	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**				**5.70E-07**	
m,p-Xylene	108-38-3, 106-42-3	0.15	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**				**1.50E-05**	
o-Xylene	95-47-6	0.051	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**				**5.10E-06**	
Styrene	100-42-5	0.0075	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**		**7.50E-07**			
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	0.0010	1400 mg/kg Oral Rat LD50[2]	**D**					**1.00E-07**
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	1.5	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**1.50E-04**		
Aroclor 1268	11096-82-5	11	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**1.10E-03**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-20' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0007200**	**0.2600008**	**0.1822500**	**0.3620208**	**0.1900**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	7.20E-04	2.60E-01	1.82E-01	3.62E-01	1.90E-01		
	7.20E-04	2.60E-02	1.82E-03	3.62E-04	1.90E-05	**0.0289236**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-18' (Lab Report 2006-002, 2006-002B)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	14	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			1.40E-03		
Barium	7440-39-3	75	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X					
Chromium	7440-47-3	390	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				3.90E-02	
Copper	7440-50-8	2900	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		2.90E-01			
Lead	7439-92-1	53	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				5.30E-03	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	4400	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					4.40E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	93	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			9.30E-03		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.040	LC Rat Inhalation 50.10 mg/kg[1]	D					4.00E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	0.0070	LD50 Oral Rat 2737 mg/kg[1]	D					7.00E-07
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0000000**	**0.2900000**	**0.0107000**	**0.0443000**	**0.4400**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	0.00E+00	2.90E-01	1.07E-02	4.43E-02	4.40E-01		
	0.00E+00	2.90E-02	1.07E-04	4.43E-05	4.40E-05	**0.0291953**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-19' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	39	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			3.90E-03		
Barium	7440-39-3	310	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	7.4	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	7.40E-04				
Chromium	7440-47-3	6100	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				6.10E-01	
Copper	7440-50-8	1800	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.80E-01			
Lead	7439-92-1	720	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				7.20E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	0.58	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A		5.80E-05			
Nickel	7440-02-0	3900	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					3.90E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	13	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X	1.30E-03				
Zinc	7440-66-6	1900	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			1.90E-01		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
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Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.17	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**1.70E-05**		
Aroclor 1260	11096-82-5	0.11	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**1.10E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-19' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirts (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0020400**	**0.1800580**	**0.1939280**	**0.6820000**	**0.3900**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.04E-03	1.80E-01	1.94E-01	6.82E-01	3.90E-01		
	2.04E-03	1.80E-02	1.94E-03	6.82E-04	3.90E-05	**0.0227061**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-20' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	47	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	**B**			**4.70E-03**		
Barium	7440-39-3	110	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	**NOT APPLICABLE**					
Cadmium	7440-43-9	1.8	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	**X**	**1.80E-04**				
Chromium	7440-47-3	2900	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	**C**				**2.90E-01**	
Copper	7440-50-8	1700	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	**A**		**1.70E-01**			
Lead	7439-92-1	480	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	**C**				**4.80E-02**	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	**C**					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	**A**					
Nickel	7440-02-0	5000	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	**D**					**5.00E-01**
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	**D**					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	**X**					
Zinc	7440-66-6	340	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	**B**			**3.40E-02**		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	**NOT APPLICABLE**					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	**D**					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	**C**					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	**C**					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	**C**					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	**C**					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	**C**					
Acetone	67-64-1	0.084	LC Rat Inhalation 50.10 mg/kg[1]	**D**					**8.40E-06**
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	**C**					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	**D**					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	**D**					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	**D**					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	**D**					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	**D**					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	**C**					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	**D**					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	**NOT APPLICABLE**					
2-Butanone	78-93-3	0.014	LD50 Oral Rat 2737 mg/kg[1]	**D**					**1.40E-06**
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	**D**					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	**B**					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	**D**					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	**D**					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	**C**					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	**C**					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	**D**					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	**D**					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	**D**					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	**C**					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	**D**					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	**C**					
Methyl Isobutyl Ketone	108-10-1	0.0062	LD50 Rat oral 4600 mg/kg[2]	**D**					**6.20E-07**
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	**C**					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	**C**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-20' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.14	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**1.40E-05**		
Aroclor 1268	11096-82-5	0.10	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**1.00E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0001800**	**0.1700000**	**0.0387240**	**0.3380000**	**0.5000**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	1.80E-04	1.70E-01	3.87E-02	3.38E-01	5.00E-01		
	1.80E-04	1.70E-02	3.87E-04	3.38E-04	5.00E-05	**0.0179552**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-21' (Lab Report 2006-002, 2006-002B)
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Conversions 1 ng/kg = 10^-10 % (mass %)
1 ug/kg = 10^-7 %
1 mg/kg = 10^-4 %

Units Displayed as mg/kg | Conversion Factor 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	32	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			3.20E-03		
Barium	7440-39-3	1900	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	2.2	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	2.20E-04				
Chromium	7440-47-3	1700	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				1.70E-01	
Copper	7440-50-8	550	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		5.50E-02			
Lead	7439-92-1	210	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				2.10E-02	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A					
Nickel	7440-02-0	2300	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					2.30E-01
Selenium	7782-49-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	260	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			2.60E-02		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	ND	LC Rat Inhalation 50.10 mg/kg[1]	D					
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	ND	LD50 Rabbit Dermal 20 mg/kg[3]	B					
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C					
1,2-Dichloroethane	107-06-2	ND	LD50 Rat oral 670-890 mg/kg[2]	D					
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	ND	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**					
Aroclor 1260	11096-82-5	ND	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**					
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0002200**	**0.0550000**	**0.0292000**	**0.1910000**	**0.2300**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	2.20E-04	5.50E-02	2.92E-02	1.91E-01	2.30E-01		
	2.20E-04	5.50E-03	2.92E-04	1.91E-04	2.30E-05	**0.0062260**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-22' (Lab Report 2006-002)
Sample Date: 06-01-20
Book Designation by: Stacy Fox

Conversions: 1 ng/kg = 10^-10 % (mass %); 1 ug/kg = 10^-7 %; 1 mg/kg = 10^-4 %

Units Displayed as: mg/kg | Conversion Factor: 0.0001

Analyte	CAS	Concentration*	Toxicity[Source]	Toxic Category	Concentration (mass %) X	A	B	C	D
TOTAL METALS by 6010C/7471B									
Arsenic	7440-38-2	21	LC50 Oncorhynchus mykiss (Rainbow Trout) >170 - <15,610 ug/L/96hr [3]	B			2.10E-03		
Barium	7440-39-3	460	LC50 Lepomis macrochirus (Bluegill) 198000 ug/L/96hr[3]	NOT APPLICABLE					
Cadmium	7440-43-9	10	LC50 Oncorhynchus mykiss (Rainbow Trout) 0.003 mg/L/96 hr[3]	X	1.00E-03				
Chromium	7440-47-3	2100	LC50 Danio rerio (Zebra Danio) 3.9 mg/kg/24 hr[3]	C				2.10E-01	
Copper	7440-50-8	1600	LC50 Pimephales promelas (fathead minnow) 0.02 mg/l/96 hr[3]	A		1.60E-01			
Lead	7439-92-1	1000	LC50 Oncorhynchus mykiss (Rainbow Trout) 1000 ug/L/96 hr[3]	C				1.00E-01	
Manganese	7439-96-5	--	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.89 mg/kg[3]	C					
Mercury	7439-97-6	0.37	LC50 Oncorhynchus mykiss (Rainbow Trout) 33 ug/L/96 hr[3]	A		3.70E-05			
Nickel	7440-02-0	970	LC50 Oncorhynchus mykiss (Rainbow Trout) 15 mg/L 96 hr[3]	D					9.70E-02
Selenium	7782-49-2	27	LC50 Oncorhynchus mykiss (Rainbow Trout) 11500 ug/L/96 hr[3]	D					2.70E-03
Silver	7440-22-4	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.2 ug/L/ 96hr[3]	X					
Zinc	7440-66-6	3000	LC50 Oncorhynchus tshawytscha (Chinook Salmon) 0.182 mg/L/96 hr[3]	B			3.00E-01		
VOLATILES by EPA 8260C									
Dichlorodifluoromethane	75-71-8	ND	LD 50 Rat Inhalation >800,000 mg/L[2]	NOT APPLICABLE					
Chloromethane	74-87-3	ND	LD50 Oral Rat 1800 mg/kg[2]	D					
Vinyl Chloride	75-01-4	ND	LD50 Oral Rat 500 mg/kg[2]	C					
Bromomethane	74-83-9	ND	LD50 Oral Rat 214 mg/kg[2]	C					
Chloroethane	79-34-5	ND	LD50 Oral Rat 200 mg/kg[3]	C					
Trichlorofluoromethane	75-69-4	ND	LD50 Oral Rat 352 mg/kg[1]	C					
1,1-Dichloroethene	75-35-4	ND	LD50 Oral Rat 200 mg/kg[2]	C					
Acetone	67-64-1	0.055	LC Rat Inhalation 50.10 mg/kg[1]	D					5.50E-06
Iodomethane	74-88-4	ND	LD50 Oral Rat 76 mg/kg2	C					
Carbon Disulfide	75-15-0	ND	LD50 Oral Rat 1200 mg/kg[1]	D					
Methylene Chloride	75-09-2	ND	LD50 Oral Rat 985 mg/kg[1]	D					
trans-1,2-Dichloroethene	156-60-5	ND	LD50 Rat oral 1235 mg/kg[2]	D					
Methyl t-Butyl Ether	1634-04-4	ND	LD50 Rat Oral 4000 mg/kg[2]	D					
1,1-Dichloroethane	75-34-3	ND	LD50 Rat Oral 725 mg/kg[2]	D					
Vinyl Acetate	108-05-4	ND	LC50 Rat Inhalation 11.4 mg/kg[1]	C					
2,2-Dichloropropane	594-20-7	ND	TAKEN FROM 1,2-DICHLOROPROPANE LD50 Rat Oral 1947 mg/kg[2]	D					
cis-1,2-Dichloroethene	156-59-2	ND	LC50 Lepomis machrochirus (bluegill) 135,000 ug/l/96 hr[2]	NOT APPLICABLE					
2-Butanone	78-93-3	ND	LD50 Oral Rat 2737 mg/kg[1]	D					
Bromochloromethane	74-97-5	ND	LD50 Oral Rat 5000 mg/kg[2]	D					
Chloroform	67-66-3	0.0026	LD50 Rabbit Dermal 20 mg/kg[3]	B			2.60E-07		
1,1,1-Trichloroethane	71-55-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 42.3 mg/L/96hr[3]	D					
Carbon Tetrachloride	56-23-5	ND	LD50 Oral Rat 2350 mg/kg[3]	D					
1,1-Dichloropropene	563-58-6	ND	TAKEN FROM 1,3-DICHLOROPROPENE LD50 Rat oral 127mg/kg[2]	C					
Benzene	71-43-2	0.0024	LC50 Oncorhynchus mykiss (Rainbow Trout) 9.2 mg/L/96hr[3]	C				2.40E-07	
1,2-Dichloroethane	107-06-2	0.0055	LD50 Rat oral 670-890 mg/kg[2]	D					5.50E-07
Trichloroethene	79-01-6	ND	LC50 Pimephales promelas (fathead minnow) 40.7 mg/l/96 hr[2]	D					
1,2-Dichloropropane	78-87-5	ND	LD50 Rat oral 1947 mg/kg[2]	D					
Dibromomethane	74-95-3	ND	LD50 Rat oral 108 mg/kg[1]	C					
Bromodichloromethane	75-27-4	ND	LD50 Rat Male oral 916 mg/kg[2]	D					
2-Chloroethyl Vinyl Ether	110-75-8	ND	LD50 Rat oral 250 mg/kg[2]	C					
(cis) 1,3-Dichloropropene	10061-01-5	ND	LD50 Rat (CD) oral 127 mg/kg[2]	C					
Methyl Isobutyl Ketone	108-10-1	ND	LD50 Rat oral 4600 mg/kg[2]	D					
Toluene	108-88-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 6.78 mg/L/96hr[3]	C					
(trans) 1,3-Dichloropropene	10061-02-6	ND	NO TOXICITY DATA AVAILABLE-DATA TAKEN FROM (cis) 1,3-Dichloropropene LD50 Rat oral 127mg/kg[2]	C					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-22' (Lab Report 2006-002)
Sample Date: 06-01-20
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1,1,2-Trichloroethane	79-00-5	ND	LD50 Rat oral 837 mg/kg[2]	**D**					
Tetrachloroethene	127-18-4	ND	LC50 Salmo gairdneri (Oncorhynchus mykiss - rainbow trout) 5 mg/l/96 hr[2]	**C**					
1,3-Dichloropropane	142-28-9	ND	LC50 Poecilia reticulata (guppy) 84 ppm/7 days[2]	**D**					
2-Hexanone	591-78-6	ND	LD50 Rat oral 2590 mg/kg[2]	**D**					
Dibromochloromethane	124-48-1	ND	LD50 Rat oral 370 mg/kg[2]	**C**					
1,2-Dibromoethane	106-93-4	ND	LD50 Rat oral 108 mg/kg[2]	**C**					
Chlorobenzene	108-90-7	ND	LC50 Rat Inhalation 13.65 mg/kg[3]	**C**					
1,1,1,2-Tetrachloroethane	630-20-6	ND	LD50 Rat oral 670 mg/kg[2]	**D**					
Ethylbenzene	100-41-4	ND	Oncorhynchus mykiss (Rainbow Trout) 4.2 mg/L/96 hr[3]	**C**					
m,p-Xylene	108-38-3, 106-42-3	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 2.6 mg/L/96hr[3]	**C**					
o-Xylene	95-47-6	ND	LC50 Oncorhynchus mykiss (Rainbow Trout) 7.6 mg/L/96hr[3]	**C**					
Styrene	100-42-5	ND	LC50 Rat Inhalation 0.18 mg/kg[3]	**A**					
Bromoform	75-25-2	ND	LD50 Rat 414 mg/kg[2]	**C**					
Isopropylbenzene	98-82-8	ND	1400 mg/kg Oral Rat LD50[2]	**D**					
Bromobenzene	108-86-1	ND	LD50 Oral Rat 2699 mg/kg	**D**					
1,1,2,2-Tetrachloroethane	79-34-5	ND	LD50 Rat oral 250 mg/kg[2]	**C**					
1,2,3-Trichloropropane	96-18-4	ND	LD50 Rat oral 450 mg/kg[2]	**C**					
n-propyl benzene	103-65-1	ND	6040 mg/kg Oral Rat LD50[2]	**NOT APPLICABLE**					
2-Chlorotoluene	95-49-8	ND	LD50 Oral Rat 1600 mg/kg[2]	**D**					
4-Chlorotoluene	106-43-4	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM 2-CHLOROTOLUENE Oral LD50 Rat1600 mg/kg[2]	**D**					
1,3,5-Trimethylbenzene	108-67-8	ND	LD50 Oral Rat 5000 mg/kg'	**D**					
tert-Butylbenzene	98-06-6	ND	NO TOXICITY DATA AVAILABLE TAKEN FROM SEC-BUTYLBENZENE LD50 Rat oral 2240 mg/kg[2]	**D**					
1,2,4-Trimethylbenzene	95-63-6	ND	LC50 Pimephales promelas (fathead minnow) 7.720 mg/l/96 hr[3]	**C**					
sec-Butylbenzene	135-98-8	ND	2240 mg/kg Oral Rat LD50[2]	**D**					
1,3-Dichlorobenzene	541-73-1	ND	LD50 Rat oral 580 mg/kg[2]	**D**					
p-Isopropyltoluene	99-87-6	ND	LD50 Rat oral 4750 mg/kg[2]	**D**					
1,4-Dichlorobenzene	106-46-7	ND	LD50 Rat oral 500 mg/kg[2]	**C**					
1,2-Dichlorobenzene	95-50-1	ND	LD50 Oral Rat 500 mg/kg[3]	**C**					
n-Butylbenzene	104-51-8	ND	LD50 Mouse sc 1994.5 mg/kg[2]	**D**					
1,2-Dibromo-3-chloropropane	96-12-8	ND	LD50 Rat oral 170 mg/kg[2]	**C**					
1,2,4-Trichlorobenzene	120-82-1	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
Hexachlorobutadiene	87-68-3	ND	LD50 Rat oral 90 mg/kg[2]	**C**					
Naphthalene	91-20-3	ND	LD50 Oral Rat 490 mg/kg[3]	**C**					
1,2,3-Trichlorobenzene	87-61-6	ND	LD50 Rat oral 756 mg/kg[2]	**D**					
PCBs by EPA 8082A									
Aroclor 1016	12674-11-2	ND	LC50 Oncorhynchus mykiss (rainbow trout) 135 ug/L 120 hr[2]	**B**					
Aroclor 1221	11104-28-2	ND	LC50 Salmo clarki (Cutthroat salmon) 1.17 mg/L for 96 hr[2]	**C**					
Aroclor 1232	11141-16-5	ND	LC50 Salmo clarki (Cutthroat salmon) 2.5 mg/L for 96 hr[2]	**C**					
Aroclor 1242	53469-21-9	ND	LC50 Oncorhynchus mykiss (rainbow trout) 67 ug/L 120 hr[2]	**A**					
Aroclor 1248	12672-29-6	ND	LC50 Oncorhynchus mykiss (rainbow trout) 54 ug/L 120 hr[2]	**A**					
Aroclor 1254	11097-69-1	0.17	LC50 Oncorhynchus mykiss (rainbow trout) 156 ug/L 120 hr[2]	**B**			**1.70E-05**		
Aroclor 1260	11096-82-5	0.17	LC50 Oncorhynchus mykiss (rainbow trout) >232 ug/L for 96 hr[2]	**B**			**1.70E-05**		
PAHs by EPA 8270D/SIM									
Naphthalene	91-20-3	--	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96 hr[2]	**C**					
2-methylnaphthalene	91-57-6	--	1630 mg/kg Oral Rat LD50[2]	**D**					
1-methylnaphthalene	90-12-0	--	1840 mg/kg Oral Rate LD50[2]	**D**					
Acenaphthylene	208-96-8	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	**C**					
Acenaphthene	83-32-9	--	LC50 Oncorhynchus mykiss (Rainbow trout) 1570 ug/L 96hr[3]	**C**					
Fluorene	86-73-7	--	LC50 Oncorhynchus mykiss (Rainbow trout) 820 ug/L 96hr[3]	**B**					
Phenanthrene	85-01-8	--	LC50 Oncorhynchus mykiss (Rainbow trout, larvae) 40 ug/L 27 days[2]	**A**					
Anthracene	120-12-7	--	LC50 Lepomis macrochirus (bluegill) 1.27 ug/L 96hr[2]	**X**					

Project: Star Forge, Former Jorgenson Forge Property
Waste Stream: Dust
Applicable Sample IDs: 'AW-22' (Lab Report 2006-002)
Sample Date: 06-01-20
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Fluoranthene	206-44-0	--	LC50 Lepomis macrochirus (bluegill) 3980 ug/L 96hr[2]	C					
Pyrene	129-00-0	--	LC50 Oncorhynchus mykiss (Rainbow trout) 2000 ug/L 96hr[3]	C					
Benzo(a)anthracene	56-55-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Chrysene	218-01-9	--	LC50 Neanthes arenaceodentata (fish) > 1 mg/L96 hr	C					
Benzofluoranthenes (total)	(205-99-2) (207-08-9)	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(a)pyrene	50-32-8	--	LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Indeno(1,2,3-cd)pyrene	193-39-5	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Dibenz(a,h)anthracene	53-70-3	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Benzo(g,h,i)perylene	198-55-0	--	NO DATA AVAILABLE: Taken as equivalent to Benzo(a)pyrene, LC50 Poeciliopsis lucida (Clearfin livebearer) 1.2-3.7 mg/l 24-hr[2]	C					
Petroleum Hydrocarbons									
Mineral Spirits (Stoddard Solvent)	8052-41-3	--	LD50 Oral Rat 5000 mg/kg[1]	D					
Diesel Range	68334-30-5	--	TAKEN AS DIESEL: 7500 mg/kg Oral Rat LD50[1]	Not Applicable					
Heavy Hydrocarbon Range (Lube Oil Range)	64742-65-0	--	TAKEN AS Lube Oil Range: > 5000 mg/kg Oral Rat LD50[1]	Not Applicable					
GLYCOLS									
Ethylene Glycol MHE	107-21-1	--	LD50 Oral Rat 4700 mg/kg[2]	D					
Diethylene Glycol MBE	111-46-6	--	LD50 Rabbit dermal 11,890 mg/kg[2]	D					
Propylene Glycol	57-55-6	--	LD50 Rat oral 22,000 mg/kg[2]	NOT APPLICABLE					
DIOXINS/FURANS									
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	--	1 mg/kg Oral Rat LD50[2]	A					
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	35822-46-9	--	6.325 mg/kg Oral Rat LD50[1]	B					
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	67562-39-4	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	55673-89-7	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	39227-28-6	--	0.825 mg/kg Oral Rat LD50[1]	A					
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	70648-26-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	57653-85-7	--	0.25 mg/kg Oral Rat LD50[1]	X					
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	57117-44-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	19408-74-3	--	1.8 mg/kg Oral Rat LD50[2]	A					
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	72918-21-9	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	40321-76-4	--	LC50 Oryzias latipes (Medaka, high-eyes) 0.027 (0.023-0.031) ug/L[3]	X					
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	57117-41-6	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	60851-34-5	--	NO DATA AVAILABLE - ASSIGNED TO TOXIC CATEGORY X	X					
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	57117-31-4	--	0.916 mg/kg Oral Rat LD50[1]	A					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1746-01-6	--	0.022 mg/kg Dermal Rabbit LD50[4]	X					
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	51207-31-9	--	1.0 mg/kg Oral Rat LD50[1]	A					
Total (SUM)					**0.0010000**	**0.1600370**	**0.3021343**	**0.3100002**	**0.0997**

	∑X% / 1	∑A% / 10	∑B% / 100	∑C% / 1000	∑D% / 10000	EC	Designation
Enter Category Mass % Here →	1.00E-03	1.60E-01	3.02E-01	3.10E-01	9.97E-02		
	1.00E-03	1.60E-02	3.02E-03	3.10E-04	9.97E-06	**0.0203450**	**WT02**

Sources
1 RTECS: Registry of Toxic Effects of Chemical Substances
2 HSDB: Hazardous Substances Data Bank, National Library of Medicine
3 ECOTOX Database: United States Environmental Protection Agency

*Concentration assumed from highest possible value from all samples

Random sampling locations for comparing a median with a fixed threshold (nonparametric - MARSSIM)

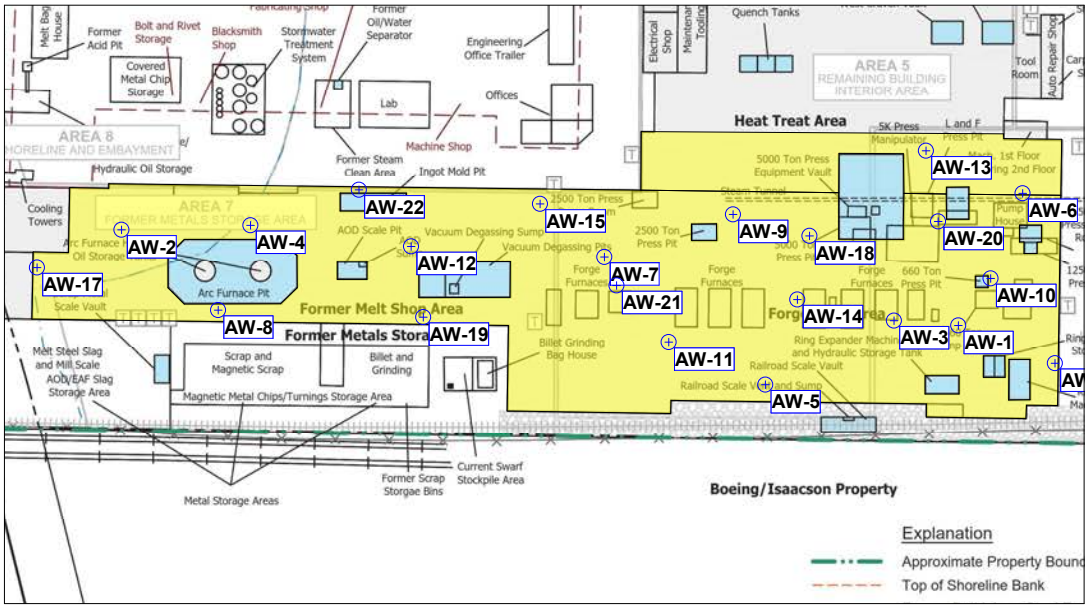
Summary

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

The following table summarizes the sampling design developed. A figure that shows sampling locations in the field and a table that lists sampling location coordinates are also provided below.

SUMMARY OF SAMPLING DESIGN	
Primary Objective of Design	Compare a site mean or median to a fixed threshold
Type of Sampling Design	Nonparametric
Sample Placement (Location) in the Field	Simple random sampling
Working (Null) Hypothesis	The median(mean) value at the site exceeds the threshold
Formula for calculating number of sampling locations	Sign Test - MARSSIM version
Calculated number of samples	18
Number of samples adjusted for EMC	18
Number of samples with MARSSIM Overage	22
Number of samples on map [a]	22
Number of selected sample areas [b]	1
Specified sampling area [c]	159472.83 ft^2

[a] This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.
[b] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[c] The sampling area is the total surface area of the selected colored sample areas on the map of the site.



Area: melt/forge shops						
X Coord	**Y Coord**	**Label**	**Value**	**Type**	**Historical**	**Sample Area**
-92.8	74.8	AW-1	0.082	Random		
-871.4	163.8	AW-2	0.596	Random		
-152.7	79.2	AW-3	0.4	Random		
-751.6	168.2	AW-4	0.052	Random		
-272.5	19.8	AW-5	0.05	Random		
-32.9	197.9	AW-6	0.215	Random		
-422.2	138.5	AW-7	0.053	Random		
-781.6	89.1	AW-8	0.063	Random		
-302.5	178.1	AW-9	0.698	Random		
-62.9	118.7	AW-10	0.051	Random		
-362.3	59.4	AW-11	0.054	Random		
-601.9	148.4	AW-12	0.054	Random		
-122.8	237.4	AW-13	0.239	Random		
-242.6	99.0	AW-14	0.059	Random		
-482.1	188.0	AW-15	1.33	Random		
-3.0	39.6	AW-16	0.79	Random		
-950.0	128.6	AW-17	12.5	Random		
-231.3	158.3	AW-18	0.052	Random		
-590.7	82.5	AW-19	0.28	Random		
-111.5	171.5	AW-20	0.24	Random		
-411.0	112.1	AW-21	0.053	Random		
-650.6	201.2	AW-22	0.34	Random		

Primary Sampling Objective
The primary purpose of sampling at this site is to compare a site median or mean value with a fixed threshold. The working hypothesis (or 'null' hypothesis) is that the median(mean) value at the site is equal to or exceeds the threshold. The alternative hypothesis is that the median(mean) value is less than the threshold. VSP calculates the number of samples required to reject the null hypothesis in favor of the alternative one, given a selected sampling approach and inputs to the associated equation.

Selected Sampling Approach
A nonparametric random sampling approach was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

VSP offers many options to determine the locations at which measurements are made or samples are collected and subsequently measured. For this design, simple random point sampling was chosen. Locating the sample points randomly provides data that are separated by varying distances, providing good information about the spatial structure of the potential contamination. Knowledge of the spatial structure is useful for geostatistical analysis. However, it may not ensure that all portions of the site are equally represented.

Number of Total Samples: Calculation Equation and Inputs
The equation used to calculate the number of samples is based on a Sign test (see PNNL 13450 for discussion). For this

site, the null hypothesis is rejected in favor of the alternative one if the median(mean) is sufficiently smaller than the threshold. The number of samples to collect is calculated so that if the inputs to the equation are true, the calculated number of samples will cause the null hypothesis to be rejected.

The formula used to calculate the number of samples is:

$$n = \frac{\left(Z_{1-\alpha} + Z_{1-\beta}\right)^2}{4(SignP - 0.5)^2}$$

where

$$SignP = \Phi\left(\frac{\Delta}{S_{total}}\right)$$

$\Phi(z)$ is the cumulative standard normal distribution on $(-\infty,z)$ (see PNNL-13450 for details),
n is the number of samples,
S_{total} is the estimated standard deviation of the measured values including analytical error,
Δ is the width of the gray region,
α is the acceptable probability of incorrectly concluding the site median(mean) is less than the threshold,
β is the acceptable probability of incorrectly concluding the site median(mean) exceeds the threshold,
$Z_{1-\alpha}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$,
$Z_{1-\beta}$ is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\beta}$ is $1-\beta$.

Note: MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n. VSP allows a user-supplied percent overage as discussed in MARSSIM (EPA 2000, p. 5-33).

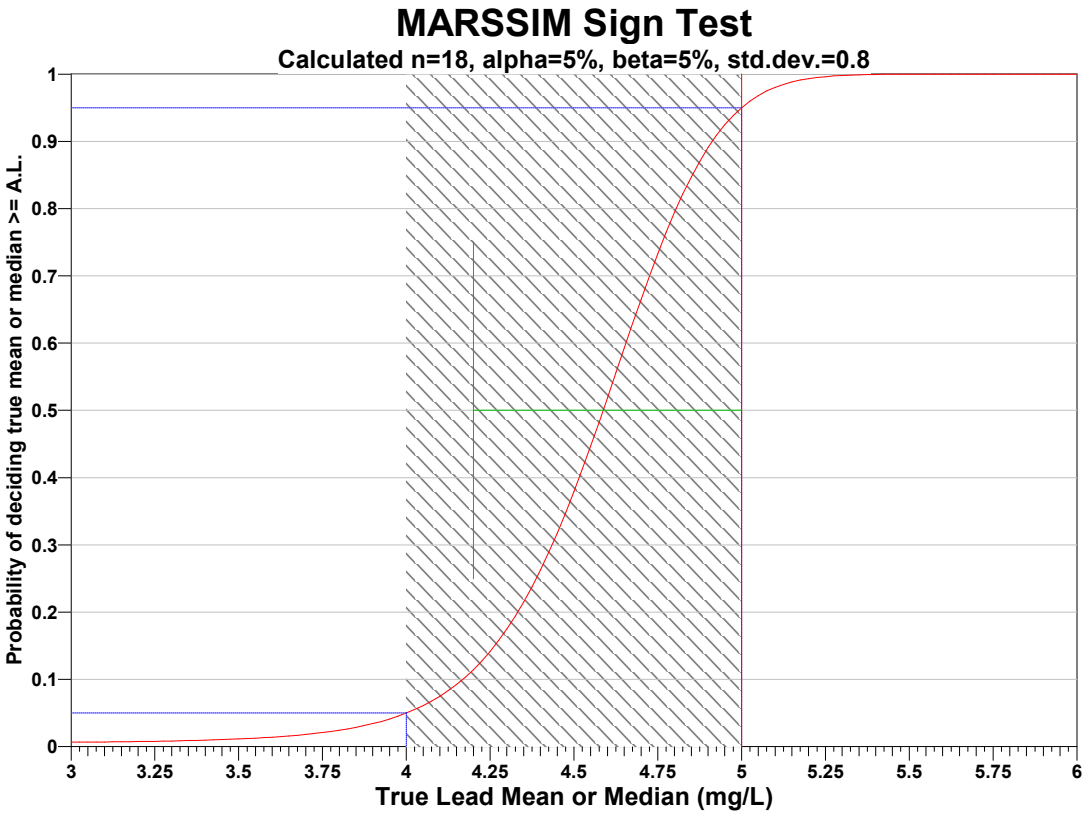
For each nuclide in the table, the values of these inputs that result in the calculated number of sampling locations are:

Nuclide	n[a]	n[b]	n[c]	Parameter					
				S_{total}	Δ	α	β	$Z_{1-\alpha}$[d]	$Z_{1-\beta}$[e]
PCB	0	0	0		5	0.05	0.05	1.64485	1.64485
Barium	0	0	0		10	0.05	0.05	1.64485	1.64485
Cadmium	0	0	0		0.2	0.05	0.05	1.64485	1.64485
Chromium	0	0	0		1	0.05	0.05	1.64485	1.64485
Lead	18	18	22	0.8	1	0.05	0.05	1.64485	1.64485

[a] The number of samples calculated by the formula.
[b] The number of samples increased by EMC calculations.
[c] The final number of samples increased by the MARSSIM Overage of 20%.
[d] This value is automatically calculated by VSP based upon the user defined value of α.
[e] This value is automatically calculated by VSP based upon the user defined value of β.

Performance
The following figure is a performance goal diagram, described in EPA's QA/G-4 guidance (EPA, 2000). It shows the probability of concluding the sample area is dirty on the vertical axis versus a range of possible true median(mean) values for the site on the horizontal axis. This graph contains all of the inputs to the number of samples equation and pictorially represents the calculation.

The red vertical line is shown at the threshold (action limit) on the horizontal axis. The width of the gray shaded area is equal to Δ; the upper horizontal dashed blue line is positioned at $1-\alpha$ on the vertical axis; the lower horizontal dashed blue line is positioned at β on the vertical axis. The vertical green line is positioned at one standard deviation below the threshold. The shape of the red curve corresponds to the estimates of variability. The calculated number of samples results in the curve that passes through the lower bound of Δ at β and the upper bound of Δ at $1-\alpha$. If any of the inputs change, the number of samples that result in the correct curve changes.



Statistical Assumptions

The assumptions associated with the formulas for computing the number of samples are:

1. the computed sign test statistic is normally distributed,
2. the variance estimate, S^2, is reasonable and representative of the population being sampled,
3. the population values are not spatially or temporally correlated, and
4. the sampling locations will be selected randomly.

The first three assumptions will be assessed in a post data collection analysis. The last assumption is valid because the sample locations were selected using a random process.

Sensitivity Analysis

The sensitivity of the calculation of number of samples was explored by varying the standard deviation, lower bound of gray region (% of action level), beta (%), probability of mistakenly concluding that μ > action level and alpha (%), probability of mistakenly concluding that μ < action level. The following table shows the results of this analysis.

Number of Samples							
AL=50		α=5		α=10		α=15	
		s=1.6	s=0.8	s=1.6	s=0.8	s=1.6	s=0.8
LBGR=90	β=5	216	60	172	48	144	40
	β=10	172	48	132	36	108	30
	β=15	144	40	108	30	87	24
LBGR=80	β=5	60	22	48	17	40	15
	β=10	48	17	36	14	30	11
	β=15	40	15	30	11	24	9
LBGR=70	β=5	32	16	26	12	21	11
	β=10	26	12	20	10	16	9
	β=15	21	11	16	9	14	6

s = Standard Deviation
LBGR = Lower Bound of Gray Region (% of Action Level)
β = Beta (%), Probability of mistakenly concluding that μ > action level
α = Alpha (%), Probability of mistakenly concluding that μ < action level
AL = Action Level (Threshold)

Note: Values in table are not adjusted for EMC.

Data Analysis for PCB
The following data points were entered by the user for analysis.

PCB (mg/kg)										
Rank	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
0	0.05	0.051	0.052	0.052	0.053	0.053	0.054	0.054	0.059	0.063
10	0.082	0.215	0.239	0.24	0.28	0.34	0.4	0.596	0.698	0.79
20	1.33	12.5								

SUMMARY STATISTICS for PCB	
n	22
Min	0.05
Max	12.5
Range	12.45
Mean	0.82959
Median	0.1485
Variance	6.8998
StdDev	2.6267
Std Error	0.56002
Skewness	4.5766
Interquartile Range	0.396

Percentiles								
1%	**5%**	**10%**	**25%**	**50%**	**75%**	**90%**	**95%**	**99%**
0.05	0.05015	0.0513	0.053	0.1485	0.449	1.168	10.82	12.5

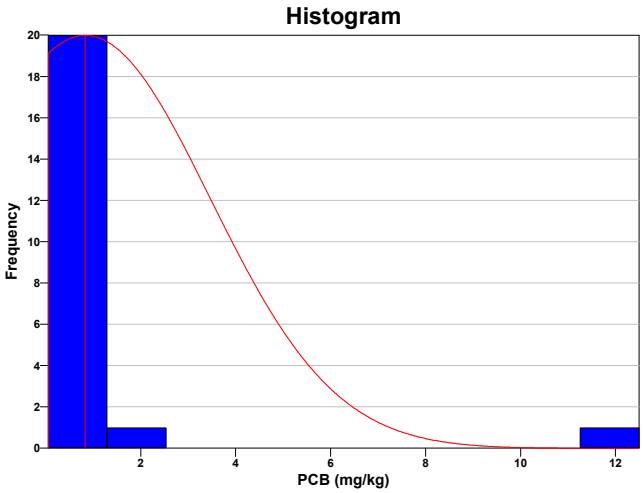
Data Plots
Three graphical displays of the data are shown below: the Histogram, the Box and Whiskers plot, and the Quantile-Quantile (Q-Q) plot.

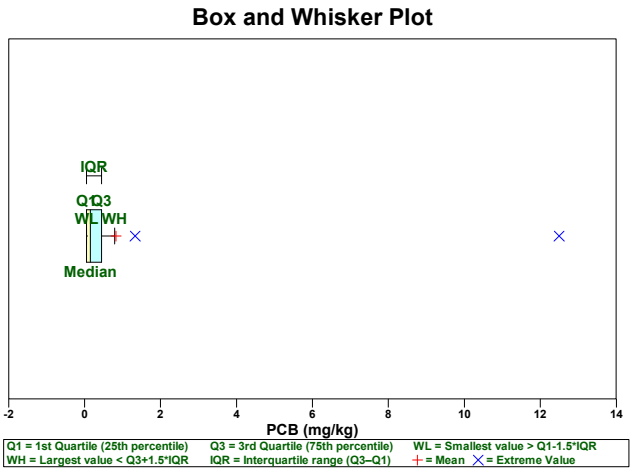
The Histogram is a plot of the fraction of the n observed data that fall within specified data "bins." A histogram is generated by dividing the x axis (range of the observed data values) into "bins" and displaying the number of data in each bin as the height of a bar for the bin. The area of the bar is the fraction of the n data values that lie within the bin. The sum of the fractions for all bins equals one. A histogram is used to assess how the n data are distributed (spread) over their range of values. If the histogram is more or less symmetric and bell shaped, then the data may be normally distributed.

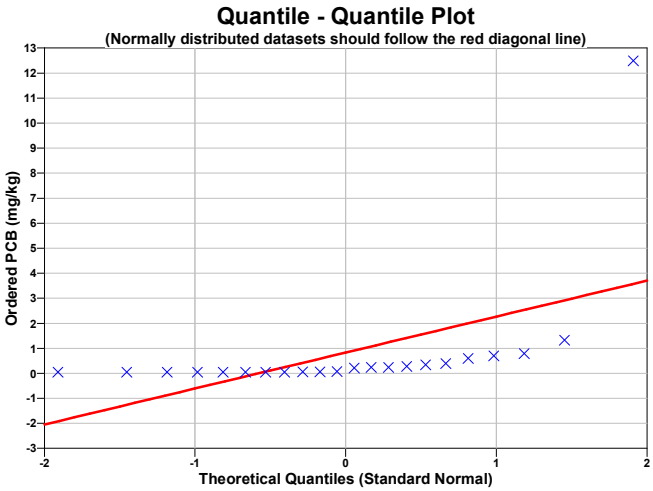
The Box and Whiskers plot is composed of a central box divided by a line, and with two lines extending out from the box, called the "whiskers". The line through the box is drawn at the median of the n data observed. The two ends of the box represent the 25^{th} and 75^{th} percentiles of the n data values, which are also called the lower and upper quartiles, respectively, of the data set. The sample mean (mean of the n data) is shown as a "+" sign. The upper whisker extends

to the largest data value that is less than the upper quartile plus 1.5 times the interquartile range (upper quartile minus the lower quartile). The lower whisker extends to the smallest data value that is greater than the lower quartile minus 1.5 times the interquartile range. Extreme data values (greater or smaller than the ends of the whiskers) are plotted individually. A Box and Whiskers plot is used to assess the symmetry of the distribution of the data set. If the distribution is symmetrical, the box is divided into two equal halves by the median, the whiskers will be the same length, and the number of extreme data points will be distributed equally on either end of the plot.

The Q-Q plot graphs the quantiles of a set of n data against the quantiles of a specific distribution. We show here only the Q-Q plot for an assumed normal distribution. The p^{th} quantile of a distribution of data is the data value, x_p, for which a fraction p of the distribution is less than x_p. If the data plotted on the normal distribution Q-Q plot closely follow a straight line, even at the ends of the line, then the data may be assumed to be normally distributed. If the data points deviate substantially from a linear line, then the data are not normally distributed.







For more information on these three plots consult Guidance for Data Quality Assessment, EPA QA/G-9, pgs 2.3-1 through 2.3-12. (http://www.epa.gov/quality/qa-docs.html).

Tests for PCB
Summary of Statistical Tests
The following table summarizes the data analysis results and is comparable to MARSSIM Table 8.2. This analysis applies to the discrete sample results (see MARSSIM 8.2.5).

All Measurements < $DCGL_W$	Average > $DCGL_W$	Sign Test Result	EMC Result	Conclusion

Yes	No	N/A	All results <= the Investigation Level of 50 mg/kg	**Survey Unit meets release criterion**

MARSSIM Sign Test
The Sign test was performed in accordance with the guidance given in section 8.3.2 of MARSSIM. Each measurement (X_i) was subtracted from the action level to obtain n differences: $d_i = AL - X_i$. Any differences of zero were discarded from consideration and the sample size was reduced accordingly. The test statistic S+ was calculated by counting the positive differences. S+ was then compared with the critical value k, which was obtained from Table I.3 in Appendix I of MARSSIM.

If $S+ > k$, then the null hypothesis is rejected.

MARSSIM SIGN TEST		
Test Statistic S+	**95% Critical Value**	**Null Hypothesis**
22	15	Reject

The test rejected the null hypothesis that the mean value at the site exceeds the threshold, so conclude the site is clean.

Data Analysis for Barium
The following data points were entered by the user for analysis.

Barium (mg/L)										
Rank	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
0	0.3	0.37	0.38	0.46	0.46	0.49	0.51	0.54	0.54	0.55
10	0.56	0.56	0.62	0.64	0.64	0.68	0.72	0.76	0.88	1
20	1	1.8								

SUMMARY STATISTICS for Barium	
n	22
Min	0.3
Max	1.8
Range	1.5
Mean	0.65727
Median	0.56
Variance	0.09904
StdDev	0.31471
Std Error	0.067096
Skewness	2.4619
Interquartile Range	0.2475

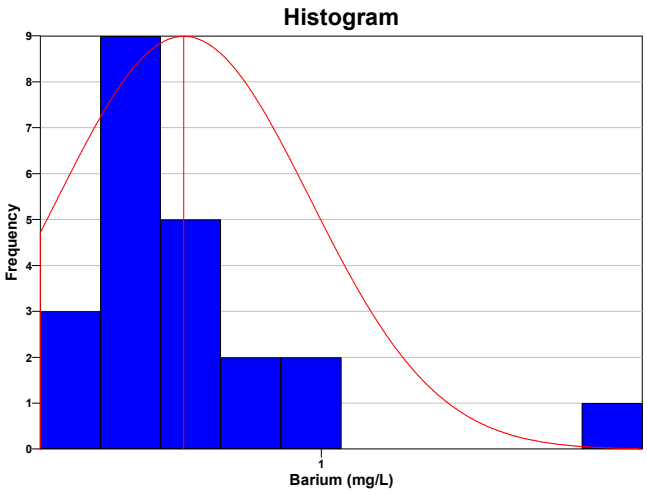
Percentiles								
1%	**5%**	**10%**	**25%**	**50%**	**75%**	**90%**	**95%**	**99%**
0.3	0.3105	0.373	0.4825	0.56	0.73	1	1.68	1.8

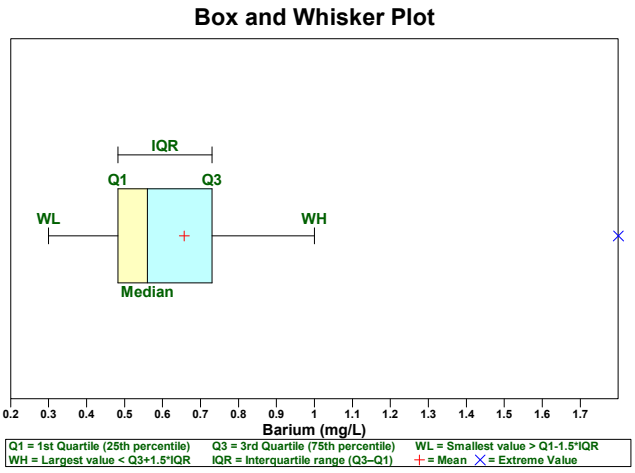
Data Plots
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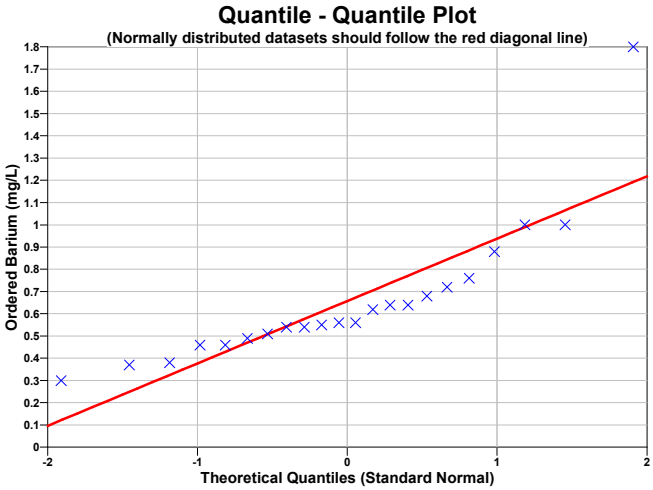
The Histogram is a plot of the fraction of the n observed data that fall within specified data "bins." A histogram is generated by dividing the x axis (range of the observed data values) into "bins" and displaying the number of data in each bin as the height of a bar for the bin. The area of the bar is the fraction of the n data values that lie within the bin. The sum of the fractions for all bins equals one. A histogram is used to assess how the n data are distributed (spread) over their range of values. If the histogram is more or less symmetric and bell shaped, then the data may be normally distributed.

The Box and Whiskers plot is composed of a central box divided by a line, and with two lines extending out from the box, called the "whiskers". The line through the box is drawn at the median of the n data observed. The two ends of the box represent the 25^{th} and 75^{th} percentiles of the n data values, which are also called the lower and upper quartiles, respectively, of the data set. The sample mean (mean of the n data) is shown as a "+" sign. The upper whisker extends to the largest data value that is less than the upper quartile plus 1.5 times the interquartile range (upper quartile minus the lower quartile). The lower whisker extends to the smallest data value that is greater than the lower quartile minus 1.5 times the interquartile range. Extreme data values (greater or smaller than the ends of the whiskers) are plotted individually. A Box and Whiskers plot is used to assess the symmetry of the distribution of the data set. If the distribution is symmetrical, the box is divided into two equal halves by the median, the whiskers will be the same length, and the number of extreme data points will be distributed equally on either end of the plot.

The Q-Q plot graphs the quantiles of a set of n data against the quantiles of a specific distribution. We show here only the Q-Q plot for an assumed normal distribution. The p^{th} quantile of a distribution of data is the data value, x_p, for which a fraction p of the distribution is less than x_p. If the data plotted on the normal distribution Q-Q plot closely follow a straight line, even at the ends of the line, then the data may be assumed to be normally distributed. If the data points deviate substantially from a linear line, then the data are not normally distributed.







For more information on these three plots consult Guidance for Data Quality Assessment, EPA QA/G-9, pgs 2.3-1 through

2.3-12. (http://www.epa.gov/quality/qa-docs.html).

Tests for Barium
Summary of Statistical Tests
The following table summarizes the data analysis results and is comparable to MARSSIM Table 8.2. This analysis applies to the discrete sample results (see MARSSIM 8.2.5).

All Measurements < $DCGL_W$	Average > $DCGL_W$	Sign Test Result	EMC Result	Conclusion
Yes	No	N/A	All results <= the Investigation Level of 100 mg/L	**Survey Unit meets release criterion**

MARSSIM Sign Test
The Sign test was performed in accordance with the guidance given in section 8.3.2 of MARSSIM. Each measurement (X_i) was subtracted from the action level to obtain n differences: $d_i = AL - X_i$. Any differences of zero were discarded from consideration and the sample size was reduced accordingly. The test statistic S+ was calculated by counting the positive differences. S+ was then compared with the critical value k, which was obtained from Table I.3 in Appendix I of MARSSIM.

If $S+ > k$, then the null hypothesis is rejected.

MARSSIM SIGN TEST		
Test Statistic S+	**95% Critical Value**	**Null Hypothesis**
22	15	Reject

The test rejected the null hypothesis that the mean value at the site exceeds the threshold, so conclude the site is clean.

Data Analysis for Cadmium
The following data points were entered by the user for analysis.

Cadmium (mg/L)										
Rank	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
10	0.02	0.021	0.021	0.023	0.028	0.029	0.038	0.04	0.046	0.053
20	0.057	0.12								

SUMMARY STATISTICS for Cadmium	
n	22
Min	0.02
Max	0.12
Range	0.1
Mean	0.031636
Median	0.0205
Variance	0.00052548
StdDev	0.022923
Std Error	0.0048873
Skewness	3.0412
Interquartile Range	0.0185

Percentiles								
1%	5%	10%	25%	50%	75%	90%	95%	99%
0.02	0.02	0.02	0.02	0.0205	0.0385	0.0558	0.1106	0.12

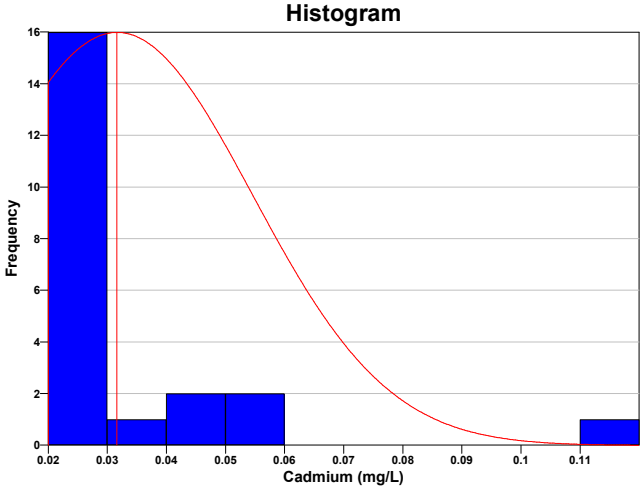
Data Plots

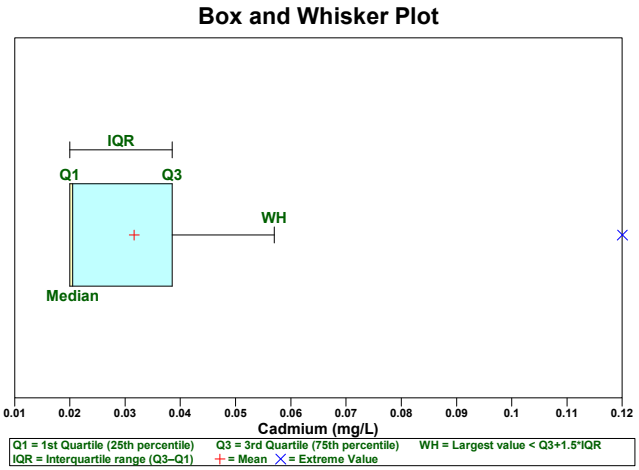
Three graphical displays of the data are shown below: the Histogram, the Box and Whiskers plot, and the Quantile-Quantile (Q-Q) plot.

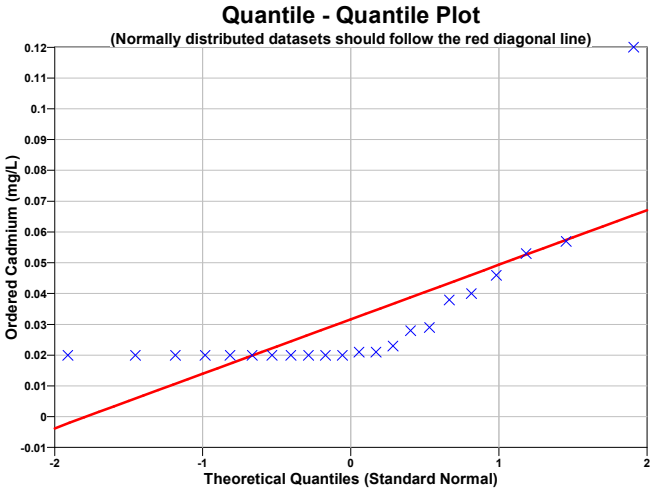
The Histogram is a plot of the fraction of the n observed data that fall within specified data "bins." A histogram is generated by dividing the x axis (range of the observed data values) into "bins" and displaying the number of data in each bin as the height of a bar for the bin. The area of the bar is the fraction of the n data values that lie within the bin. The sum of the fractions for all bins equals one. A histogram is used to assess how the n data are distributed (spread) over their range of values. If the histogram is more or less symmetric and bell shaped, then the data may be normally distributed.

The Box and Whiskers plot is composed of a central box divided by a line, and with two lines extending out from the box, called the "whiskers". The line through the box is drawn at the median of the n data observed. The two ends of the box represent the 25^{th} and 75^{th} percentiles of the n data values, which are also called the lower and upper quartiles, respectively, of the data set. The sample mean (mean of the n data) is shown as a "+" sign. The upper whisker extends to the largest data value that is less than the upper quartile plus 1.5 times the interquartile range (upper quartile minus the lower quartile). The lower whisker extends to the smallest data value that is greater than the lower quartile minus 1.5 times the interquartile range. Extreme data values (greater or smaller than the ends of the whiskers) are plotted individually. A Box and Whiskers plot is used to assess the symmetry of the distribution of the data set. If the distribution is symmetrical, the box is divided into two equal halves by the median, the whiskers will be the same length, and the number of extreme data points will be distributed equally on either end of the plot.

The Q-Q plot graphs the quantiles of a set of n data against the quantiles of a specific distribution. We show here only the Q-Q plot for an assumed normal distribution. The p^{th} quantile of a distribution of data is the data value, x_p, for which a fraction p of the distribution is less than x_p. If the data plotted on the normal distribution Q-Q plot closely follow a straight line, even at the ends of the line, then the data may be assumed to be normally distributed. If the data points deviate substantially from a linear line, then the data are not normally distributed.







For more information on these three plots consult Guidance for Data Quality Assessment, EPA QA/G-9, pgs 2.3-1 through 2.3-12. (http://www.epa.gov/quality/qa-docs.html).

Tests for Cadmium
Summary of Statistical Tests
The following table summarizes the data analysis results and is comparable to MARSSIM Table 8.2. This analysis applies to the discrete sample results (see MARSSIM 8.2.5).

All Measurements < $DCGL_W$	Average > $DCGL_W$	Sign Test Result	EMC Result	Conclusion
Yes	No	N/A	All results <= the Investigation Level of 1 mg/L	**Survey Unit meets release criterion**

MARSSIM Sign Test
The Sign test was performed in accordance with the guidance given in section 8.3.2 of MARSSIM. Each measurement (X_i) was subtracted from the action level to obtain n differences: $d_i = AL - X_i$. Any differences of zero were discarded from consideration and the sample size was reduced accordingly. The test statistic S+ was calculated by counting the positive differences. S+ was then compared with the critical value k, which was obtained from Table I.3 in Appendix I of MARSSIM.

If $S+ > k$, then the null hypothesis is rejected.

MARSSIM SIGN TEST		
Test Statistic S+	**95% Critical Value**	**Null Hypothesis**
22	15	Reject

The test rejected the null hypothesis that the mean value at the site exceeds the threshold, so conclude the site is clean.

Data Analysis for Chromium
The following data points were entered by the user for analysis.

Chromium (mg/L)										
Rank	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
0	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
10	0.024	0.039	0.05	0.059	0.076	0.076	0.1	0.12	0.13	0.22
20	0.26	0.58								

SUMMARY STATISTICS for Chromium

n	22
Min	0.02
Max	0.58
Range	0.56
Mean	0.087909
Median	0.0315
Variance	0.016539
StdDev	0.1286
Std Error	0.027418
Skewness	3.0312
Interquartile Range	0.085

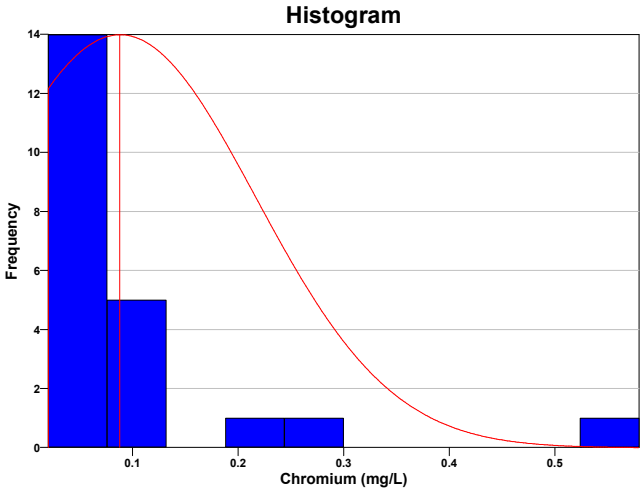
Percentiles								
1%	**5%**	**10%**	**25%**	**50%**	**75%**	**90%**	**95%**	**99%**
0.02	0.02	0.02	0.02	0.0315	0.105	0.248	0.532	0.58

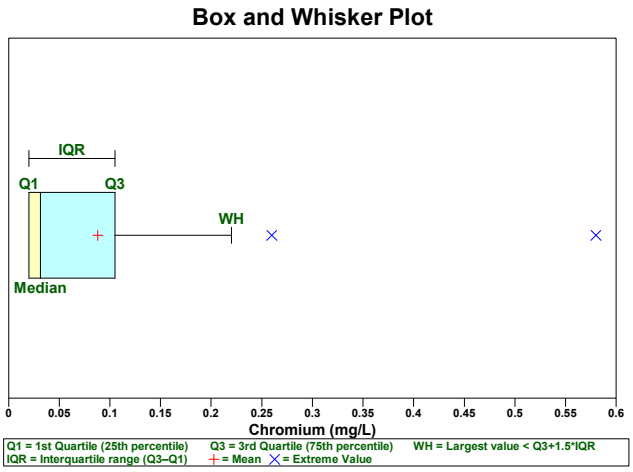
Data Plots
Three graphical displays of the data are shown below: the Histogram, the Box and Whiskers plot, and the Quantile-Quantile (Q-Q) plot.

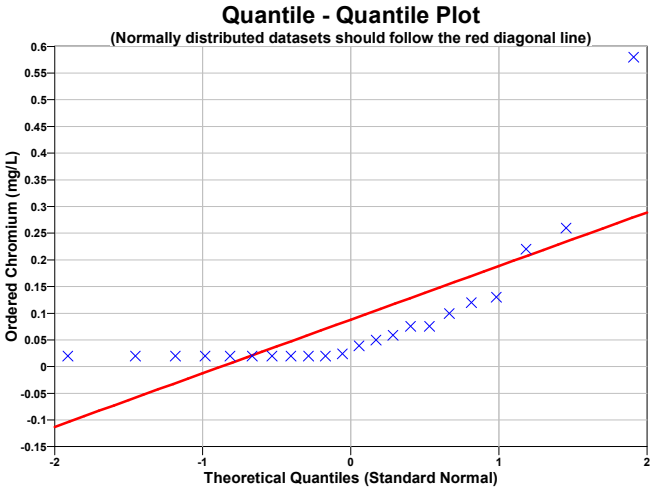
The Histogram is a plot of the fraction of the n observed data that fall within specified data "bins." A histogram is generated by dividing the x axis (range of the observed data values) into "bins" and displaying the number of data in each bin as the height of a bar for the bin. The area of the bar is the fraction of the n data values that lie within the bin. The sum of the fractions for all bins equals one. A histogram is used to assess how the n data are distributed (spread) over their range of values. If the histogram is more or less symmetric and bell shaped, then the data may be normally distributed.

The Box and Whiskers plot is composed of a central box divided by a line, and with two lines extending out from the box, called the "whiskers". The line through the box is drawn at the median of the n data observed. The two ends of the box represent the 25^{th} and 75^{th} percentiles of the n data values, which are also called the lower and upper quartiles, respectively, of the data set. The sample mean (mean of the n data) is shown as a "+" sign. The upper whisker extends to the largest data value that is less than the upper quartile plus 1.5 times the interquartile range (upper quartile minus the lower quartile). The lower whisker extends to the smallest data value that is greater than the lower quartile minus 1.5 times the interquartile range. Extreme data values (greater or smaller than the ends of the whiskers) are plotted individually. A Box and Whiskers plot is used to assess the symmetry of the distribution of the data set. If the distribution is symmetrical, the box is divided into two equal halves by the median, the whiskers will be the same length, and the number of extreme data points will be distributed equally on either end of the plot.

The Q-Q plot graphs the quantiles of a set of n data against the quantiles of a specific distribution. We show here only the Q-Q plot for an assumed normal distribution. The p^{th} quantile of a distribution of data is the data value, x_p, for which a fraction p of the distribution is less than x_p. If the data plotted on the normal distribution Q-Q plot closely follow a straight line, even at the ends of the line, then the data may be assumed to be normally distributed. If the data points deviate substantially from a linear line, then the data are not normally distributed.







For more information on these three plots consult Guidance for Data Quality Assessment, EPA QA/G-9, pgs 2.3-1 through 2.3-12. (http://www.epa.gov/quality/qa-docs.html).

Tests for Chromium
Summary of Statistical Tests
The following table summarizes the data analysis results and is comparable to MARSSIM Table 8.2. This analysis applies to the discrete sample results (see MARSSIM 8.2.5).

All Measurements < $DCGL_W$	Average > $DCGL_W$	Sign Test Result	EMC Result	Conclusion
Yes	No	N/A	Investigation Level (IL) Not Specified	**Survey Unit meets release criterion**

MARSSIM Sign Test
The Sign test was performed in accordance with the guidance given in section 8.3.2 of MARSSIM. Each measurement (X_i) was subtracted from the action level to obtain n differences: $d_i = AL - X_i$. Any differences of zero were discarded from consideration and the sample size was reduced accordingly. The test statistic S+ was calculated by counting the positive differences. S+ was then compared with the critical value k, which was obtained from Table I.3 in Appendix I of MARSSIM.

If $S+ > k$, then the null hypothesis is rejected.

MARSSIM SIGN TEST

Test Statistic S+	95% Critical Value	Null Hypothesis
22	15	Reject

The test rejected the null hypothesis that the mean value at the site exceeds the threshold, so conclude the site is clean.

Data Analysis for Lead
The following data points were entered by the user for analysis.

Lead (mg/L)										
Rank	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20	0.2	2.8								

SUMMARY STATISTICS for Lead	
n	22
Min	0.2
Max	2.8
Range	2.6
Mean	0.31818
Median	0.2
Variance	0.30727
StdDev	0.55432
Std Error	0.11818
Skewness	4.6904
Interquartile Range	0

Percentiles								
1%	**5%**	**10%**	**25%**	**50%**	**75%**	**90%**	**95%**	**99%**
0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.41	2.8

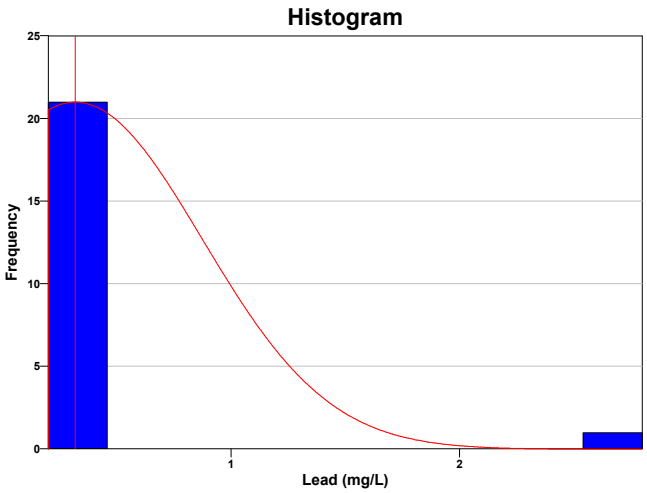
Data Plots
Three graphical displays of the data are shown below: the Histogram, the Box and Whiskers plot, and the Quantile-Quantile (Q-Q) plot.

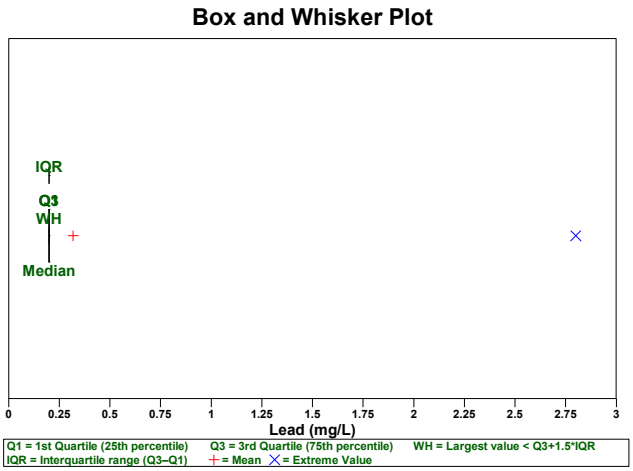
The Histogram is a plot of the fraction of the n observed data that fall within specified data "bins." A histogram is generated by dividing the x axis (range of the observed data values) into "bins" and displaying the number of data in each bin as the height of a bar for the bin. The area of the bar is the fraction of the n data values that lie within the bin. The sum of the fractions for all bins equals one. A histogram is used to assess how the n data are distributed (spread) over their range of values. If the histogram is more or less symmetric and bell shaped, then the data may be normally distributed.

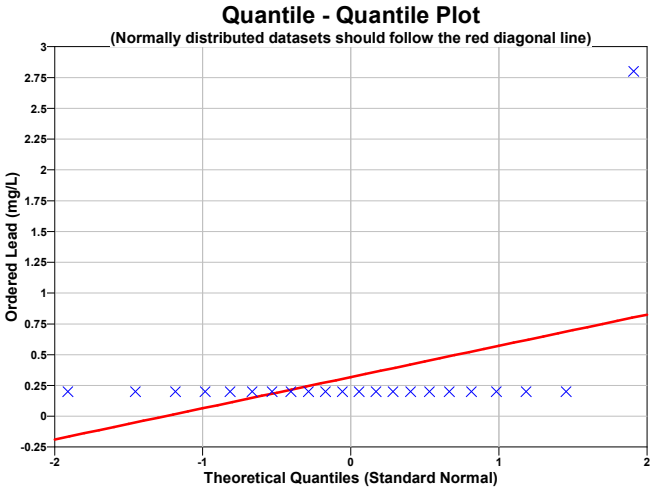
The Box and Whiskers plot is composed of a central box divided by a line, and with two lines extending out from the box, called the "whiskers". The line through the box is drawn at the median of the n data observed. The two ends of the box represent the 25^{th} and 75^{th} percentiles of the n data values, which are also called the lower and upper quartiles, respectively, of the data set. The sample mean (mean of the n data) is shown as a "+" sign. The upper whisker extends to the largest data value that is less than the upper quartile plus 1.5 times the interquartile range (upper quartile minus the lower quartile). The lower whisker extends to the smallest data value that is greater than the lower quartile minus 1.5 times the interquartile range. Extreme data values (greater or smaller than the ends of the whiskers) are plotted

individually. A Box and Whiskers plot is used to assess the symmetry of the distribution of the data set. If the distribution is symmetrical, the box is divided into two equal halves by the median, the whiskers will be the same length, and the number of extreme data points will be distributed equally on either end of the plot.

The Q-Q plot graphs the quantiles of a set of n data against the quantiles of a specific distribution. We show here only the Q-Q plot for an assumed normal distribution. The p^{th} quantile of a distribution of data is the data value, x_p, for which a fraction p of the distribution is less than x_p. If the data plotted on the normal distribution Q-Q plot closely follow a straight line, even at the ends of the line, then the data may be assumed to be normally distributed. If the data points deviate substantially from a linear line, then the data are not normally distributed.







For more information on these three plots consult Guidance for Data Quality Assessment, EPA QA/G-9, pgs 2.3-1 through 2.3-12. (http://www.epa.gov/quality/qa-docs.html).

Tests for Lead
Summary of Statistical Tests
The following table summarizes the data analysis results and is comparable to MARSSIM Table 8.2. This analysis applies to the discrete sample results (see MARSSIM 8.2.5).

All Measurements < $DCGL_W$	Average > $DCGL_W$	Sign Test Result	EMC Result	Conclusion
Yes	No	N/A	All results <= the Investigation Level of 5 mg/L	**Survey Unit meets release criterion**

MARSSIM Sign Test
The Sign test was performed in accordance with the guidance given in section 8.3.2 of MARSSIM. Each measurement (X_i) was subtracted from the action level to obtain n differences: $d_i = AL - X_i$. Any differences of zero were discarded from consideration and the sample size was reduced accordingly. The test statistic S+ was calculated by counting the positive differences. S+ was then compared with the critical value k, which was obtained from Table I.3 in Appendix I of MARSSIM.

If $S+ > k$, then the null hypothesis is rejected.

MARSSIM SIGN TEST		
Test Statistic S+	**95% Critical Value**	**Null Hypothesis**
22	15	Reject

The test rejected the null hypothesis that the mean value at the site exceeds the threshold, so conclude the site is clean.

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OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 22, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-002B

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 1, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Rainier ENVIRONMENTAL

Dangerous Waste Characterization

Sample ID: AW-8; AW-16

Report date: June 22, 2020

Submitted to:

OnSite Environmental
14648 NE 95th Street
Redmond, WA 98052

Rainier Environmental
5013 Pacific Hwy East
Suite 20
Tacoma, WA 98424

1.0 INTRODUCTION

A dangerous waste characterization using the test organism *Oncorhynchus mykiss* (rainbow trout) was conducted on two samples submitted by Onsite Environmental to Rainier Environmental. Testing was conducted following the Washington State Department of Ecology Publication 80-12.

2.0 METHODS

The samples, identified as AW-8 and AW-16 were received in the laboratory on June 16, 2020. Upon arrival at the laboratory the samples were inspected and contents verified against information provided on the chain-of-custody form. The samples were stored at 4°C in the dark until use. The test procedure is outlined in Table 1.

Table 1. Summary of Dangerous Waste Characterization Test Conditions

Parameter	Standard Fish Toxicity Test
Test numbers	2006-024; 2006-025
Sample ID's	AW-8; AW-16
Test initiation date; time	6/18/2020; 0830h
Test termination date; time	6/22/2020; 0830h
Endpoint	Mortality at 96-hours
Test chamber	7.5 L Plastic tank
Test temperature	12 ± 1°C
Dilution water	Moderately hard synthetic water
Test solution volume	6 L
Test concentrations (mg/L)	100, 10, 0
Number of organisms/chamber	10
Number of replicates	3
Test organism	*Oncorhynchus mykiss* (rainbow trout)
Feeding	No feeding during test
Photoperiod	16 hours light/ 8 hours dark
Extraction	Rotary agitation (30 +/- 2 rpm) for 18 hours
Reference Toxicant	Copper sulfate
Deviations	None

The test organisms used in the test are outlined in Table 2. The samples were tested using fish received on April 22, 2020.

Table 2. Test organisms (*Oncorhynchus mykiss*)

Test organism age	60 days post swim-up (hatch date 4/1/2020)
Mean weight	0.36 g
Mean length	36 mm
Ratio of longest to shortest	1.2
Loading	0.60 g/L
Test organism source	Trout Lodge; Sumner, WA

3.0 RESULTS

A summary of results for the dangerous waste characterization conducted on samples AW-8 and AW-16 are contained in Table 3. There was no mortality during the tests. Based on these results, the samples do not designate as either a dangerous or extremely hazardous waste. Copies of the laboratory bench sheets, statistical summaries of reference toxicant tests, and chain-of-custody form are provided in Appendices A through C.

Table 3. Summary of Results

Sample ID	Concentration (mg/L)	Survival (# fish, N=30)	Percent Mortality	Dangerous Waste Designation
Control	0	30	0	NA
AW-8	10	30	0	None
	100	30	0	
AW-16	10	30	0	None
	100	30	0	

4.0 QUALITY ASSURANCE

The most recently completed reference toxicant test was initiated June 4, 2020. The LC_{50} of 138 µg/L copper fell within the acceptable range of mean ± two standard deviations of historical test results indicating that the test organisms were of an appropriate degree of sensitivity. The coefficient of variation (CV) for the last 20 tests was 29.8 percent, which is considered excellent by the Biomonitoring Science Advisory Board.

5.0 REFERENCES

WDOE. 2016. Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria. Washington State Department of Ecology. Water Quality Program. Publication number: WQ-R-95-80, Revised June 2016.

WDOE. 2009. Biological Testing Methods 80-12 for the Designation of Dangerous Waste. Washington State Department of Ecology. Hazardous Waste and Toxics Reduction Program. Publication number: 80-12, Revised June 2009.

Appendix A
Oncorhynchus mykiss Dangerous Waste Toxicity Test
Raw Bench Sheets

Dangerous Waste Toxicity Test

Client: ONSITE ENVIRONMENTAL
Sample ID: AW-8; AW-16
Test #: 2006-024; 2006-025
Log In #: T20-134; T20-135

Start Date & Time: 6/18/2020 0830
End Date & Time: 6/22/2020 0830
Test Organism: *Oncorhynchus mykiss*
Test Protocol: **Washington State Department of Ecology Publ. 80-12**

Rep	Conc.	Cont #	Number of Live Organisms 0	24	48	72	96	Dissolved Oxygen (mg/L) 0	24	48	72	96	pH (units) 0	24	48	72	96	Conductivity (umhos/cm) 0	24	48	72	96	Temperature (°C) 0	24	48	72	96	Percent Survival
1	CON	15	10	10	10	10	10	8.9	8.5	8.2	7.8	7.5	7.95	7.71	7.58	7.31	7.22	313				308	12.3	11.9	11.8	12.1	11.7	
2		8	10	10	10	10	10	9.1	8.6	8.3	8.1	7.7	7.92	7.68	7.54	7.34	7.23	315				310						
3		22	10	10	10	10	10	9.0	8.3	8.1	8.0	7.8	7.91	7.65	7.55	7.34	7.27	312				315						
1	10PPM	17	10	10	10	10	10	9.0	8.5	8.4	8.2	8.0	7.92	7.70	7.59	7.41	7.26	313				311	12.3	12.1	11.5	12.0	11.8	
2	AW-8	4	10	10	10	10	10	9.0	8.7	8.5	8.1	7.7	7.93	7.69	7.56	7.35	7.21	312				312						
3	T20-134	7	10	10	10	10	10	9.1	8.6	8.4	8.0	7.8	7.94	7.64	7.57	7.32	7.24	313				314						
1	100PPM	23	10	10	10	10	10	9.2	8.6	8.3	7.9	7.4	7.94	7.67	7.52	7.31	7.26	315				312	12.2	12.1	11.6	12.0	11.8	
2	AW-8	16	10	10	10	10	10	9.3	8.4	8.3	8.1	7.9	7.95	7.69	7.54	7.33	7.25	314				313						
3	T20-134	18	10	10	10	10	10	9.7	8.3	8.1	7.8	7.4	7.91	7.68	7.53	7.34	7.27	314				317						
1	10PPM	5	10	10	10	10	10	9.1	8.6	8.5	8.3	8.0	7.93	7.64	7.51	7.32	7.21	314				315	12.2	11.9	11.6	11.8	12.0	
2	AW-16	20	10	10	10	10	10	9.1	8.5	8.3	8.1	8.0	7.92	7.65	7.50	7.35	7.22	313				312						
3	T20-135	27	10	10	10	10	10	9.2	8.7	8.4	8.2	8.1	7.92	7.64	7.53	7.36	7.24	314				318						
1	100PPM	6	10	10	10	10	10	9.0	8.4	8.1	7.8	7.6	7.93	7.69	7.52	7.34	7.22	313				313	12.1	11.9	11.7	12.0	11.7	
2	AW-16	19	10	10	10	10	10	9.0	8.5	8.3	8.0	7.8	7.94	7.68	7.53	7.32	7.22	312				315						
3	T20-135	9	10	10	10	10	10	8.9	8.3	8.2	8.0	7.9	7.94	7.68	7.51	7.36	7.21	313				314						
1																												
2																												
3																												
1																												
2																												
3																												
Technician Initials			VF	VF	VF	VF	VF	VF	VF	VF	VF	VF																

Sample	Alk. (init.)	Hard. (init.)	Alk. (fin.)	Hard. (fin.)	Chlorine
	(mg/L as CaCO3)				(mg/L Cl2)
Control	64	84	64	84	0.03
AW-8	64	84	64	84	
AW-16	60	84	64	80	

Animal Source: TROUT LODGE
Date Received: 4/22/20

Test Volume: 6.0L
Date of Hatch: 4/1/20
Date of Swim up: 4/18/20

Weights (g): .37 .34 .33 .38 .40 .37 .36 .35 .34 .34 μ = .36 Rainier Environmental
Lengths(mm): 35 35 32 34 34 34 37 35 35 34 μ = 36 Washington Laboratory
Length max/min: 39/32 1.2 Loading: 0.60 g/L
5013 Pacific HWY E Suite 20
Tacoma, WA 98424

Dilution Water Source: MHSW 048 QA Check VF

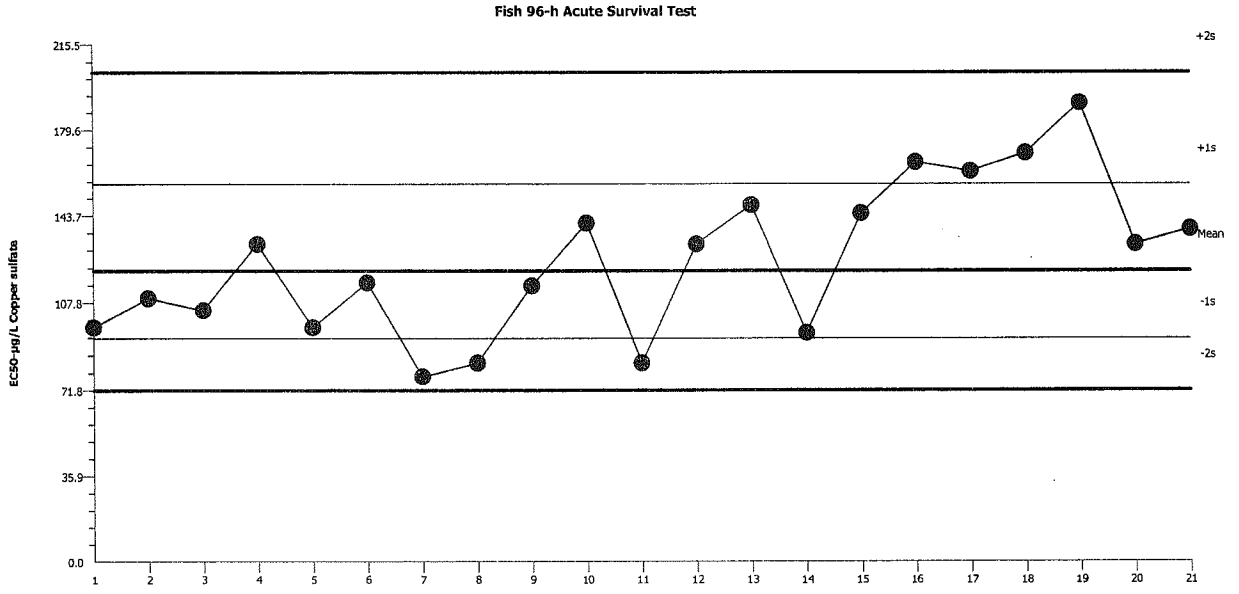
Appendix B
Reference Toxicant Test
Control Chart and Statistical Summary

CETIS QC Plot

Report Date: 08 Jun-20 12:43 (1 of 1)

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Test Type:	Survival (96h)	**Organism:**	Oncorhynchus mykiss (Rainbow Tro	**Material:**	Copper sulfate
Protocol:	Not Applicable	**Endpoint:**	96h Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	121	**Count:**	20	**-1s Warning Limit:**	93.24	**-2s Action Limit:**	71.84
Sigma:	NA	**CV:**	29.80%	**+1s Warning Limit:**	157.1	**+2s Action Limit:**	203.9

Quality Control Data

Point	Year	Month	Day	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2018	Aug	30	97.72	-23.31	-0.8203			01-6631-0399	00-2872-0274
2		Oct	5	109.7	-11.34	-0.3773			09-8718-1650	14-5303-2875
3		Nov	6	104.7	-16.3	-0.5545			20-5282-8357	01-3690-0719
4		Dec	5	132	10.93	0.3314			01-4499-1094	07-5652-1457
5	2019	Jan	7	97.72	-23.31	-0.8203			03-9395-5944	09-6087-0434
6		Feb	9	116.1	-4.882	-0.1579			13-6349-4914	05-5573-8325
7		Mar	12	77.56	-43.47	-1.706	(-)		03-9582-1391	08-0363-8342
8		Apr	19	83.12	-37.9	-1.44	(-)		16-0727-4914	09-8538-6220
9		May	21	114.9	-6.156	-0.2002			13-0213-5670	12-8044-7071
10		Jun	21	140.6	19.61	0.5759			18-7198-9789	02-0902-1290
11		Jul	23	83.12	-37.9	-1.44	(-)		09-5504-5129	09-5466-8341
12		Aug	23	132	10.93	0.3314			06-2129-4986	03-1480-8200
13		Sep	20	148.1	27.08	0.7744			14-9775-6582	02-8526-9159
14		Oct	22	95.48	-25.54	-0.9089			08-2604-9852	04-5996-4554
15		Nov	25	144.7	23.7	0.6858			19-0900-7567	17-7816-6246
16		Dec	26	166.2	45.22	1.217	(+)		18-0718-4325	01-1522-2292
17	2020	Jan	27	162.5	41.43	1.129	(+)		15-7428-0290	09-7189-2054
18		Feb	28	170.1	49.11	1.306	(+)		09-4267-7927	12-7910-1452
19		Apr	1	191	69.94	1.749	(+)		13-6543-5000	21-3363-8866
20		May	1	132	10.93	0.3314			05-3085-5611	09-0915-7454
21		Jun	4	138.2	17.17	0.5086			02-5099-4531	13-4027-8146

CETIS Summary Report

Fish 96-h Acute Survival Test — **Rainier Environmental Laboratory**

Batch ID:	00-5413-6128	**Test Type:**	Survival (96h)	**Analyst:**	Eric Tollefson
Start Date:	04 Jun-20 11:15	**Protocol:**	Not Applicable	**Diluent:**	Mod-Hard Synthetic Water
Ending Date:	08 Jun-20 12:00	**Species:**	Oncorhynchus mykiss	**Brine:**	
Duration:	4d 1h	**Source:**	Trout Lodge Fish Farm	**Age:**	46d

Sample ID:	19-4490-5545	**Code:**	RA060420OM	**Client:**	Internal Lab
Sample Date:	04 Jun-20	**Material:**	Copper sulfate	**Project:**	
Receive Date:	04 Jun-20	**Source:**	Reference Toxicant		
Sample Age:	11h	**Station:**	In House		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
21-4329-7482	96h Survival Rate	50	100	70.71	15.5%		Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	µg/L	95% LCL	95% UCL	TU	Method
13-4027-8146	96h Survival Rate	LC50	138.2	119.3	160.1		Spearman-Kärber

96h Survival Rate Summary

C-µg/L	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Dilution Water	3	1	1	1	1	1	0	0	0.0%	0.0%
25		3	1	1	1	1	1	0	0	0.0%	0.0%
50		3	1	1	1	1	1	0	0	0.0%	0.0%
100		3	0.7667	0.7451	0.7882	0.7	0.8	0.03333	0.05774	7.53%	23.33%
200		3	0.2	0.1253	0.2747	0	0.4	0.1155	0.2	100.0%	80.0%
400		3	0	0	0	0	0	0	0		100.0%

96h Survival Rate Detail

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	1	1	1
25		1	1	1
50		1	1	1
100		0.7	0.8	0.8
200		0.4	0.2	0
400		0	0	0

96h Survival Rate Binomials

C-µg/L	Control Type	Rep 1	Rep 2	Rep 3
0	Dilution Water	10/10	10/10	10/10
25		10/10	10/10	10/10
50		10/10	10/10	10/10
100		7/10	8/10	8/10
200		4/10	2/10	0/10
400		0/10	0/10	0/10

Appendix C
Chain-of-Custody Form

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory Reference #: 06-002

Laboratory: Rainier Environmental

Attention: Eric Tollefson

Address: 5013 Pacific Highway E, Suite 20, Fife, WA 98424

Phone Number: (253) 922-8898

Turnaround Request

1 Day 2 Day 3 Day

Standard

Other: 1 wk

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: Star Forge

Project Name:

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	AW-8	6/1/20	7:05	Solids	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-184
	AW-16	6/1/20	6:40	Solids	1	Fish Bioassay (Dangerous Waste 80-12 Test) T20-185

Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:	CORE	6/5/20	1600	
Received by:	UPS			
Relinquished by:	UPS			
Received by: Eric Tollefson	RAINIER	6/5/20	1355	
Relinquished by:				
Received by:				

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-002

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A		Fish Bioassay			% Moisture
1	AW-2	6/1/20	0655	Solids	5					X					X				X		X						X
2	AW-8		0705																					⊗			
3	AW-4		0715																								
4	AW-22		0725																								
5	AW-12		0735											X													
6	AW-19		0750																								
7	AW-15		0755																								
8	AW-7		0805																								
9	AW-21		0815																								
10	AW-11		0820																								

	Signature	Company	Date	Time
Relinquished		DH Env.	6-1-20	11:10
Received		OSE	6/1/20	1140
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
⊗ Added 6/15/2020. DB (1 week Rush)

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley / D. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-002

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A		I, F2 B10 assay			% Moisture
21	AW-16	6/1/20	1020	Solids	5					X					X				X		X			X			10
22	AW-17	↓	0640	↓	↓					X					X				X		X						↓

	Signature	Company	Date	Time
Relinquished		OH Env.	6-1-20	11:10
Received		OHE	6/1/20	1140
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

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Project Name: Star Forge
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Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-002

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A						% Moisture
11	AW-9	6/1/20	0830	Solids	5					X					X				X		X							10
12	AW-14	↓	0840	↓	↓					↓					↓				↓		↓							↓
13	AW-5		0850																									
14	AW-3		0900																									
15	AW-1		0910																									
16	AW-10		0920																									
17	AW-13		0930																									
18	AW-18		0940																									
19	AW-20		0950																									
20	AW-6	↓	1005	↓	↓					↓				X	↓				↓		↓							↓

	Signature	Company	Date	Time
Relinquished		DH Env.	6-1-20	11:10
Received		OSE	6/1/20	1110
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 4, 2020

David Hill
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project Star Forge
Laboratory Reference No. 2006-002

Dear Dave:

Enclosed are the analytical results and associated quality control data for samples submitted on June 1, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

Case Narrative

Samples were collected on June 1, 2020 and received by the laboratory on June 1, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

Surrogate Standard Dibromofluoromethane is outside control limits for sample AW-14 due to sample matrix effects. The sample was re-analyzed with similar results.

Some MTCA Method A cleanup levels are non-achievable for sample AW-6 due to the foaming nature of the sample matrix.

Some MTCA Method A cleanup levels are non-achievable for sample AW-16 due to the low weight of the sample matrix.

Total Metals EPA 6010D/7471B Analysis

The duplicate RPD for Nickel is outside control limits due to sample inhomogeneity.

The duplicate RPD for Barium and Copper is outside control limits due to sample inhomogeneity.

Due to the high concentration of Barium, Chromium, Copper, Lead, Nickel and Zinc in the QC sample, the amount spiked was insufficient for meaningful MS/MSD recovery data. The Spike Blank recovery was102% for Barium, 91% for Chromium, 107% for Copper,94% for Lead, 102% for Nickel and 97% for Zinc.

The Matrix Spike/Matrix Spike Duplicate RPD for Barium is outside control limits due to matrix inhomogeneity.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-2**					
Laboratory ID:	06-002-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0056	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0020	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Acetone	0.019	0.0083	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.015	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-2**					
Laboratory ID:	06-002-01					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	0.0028	0.00083	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0041	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*103*	*71-130*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-8**					
Laboratory ID:	06-002-02					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0079	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0028	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.021	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-8**					
Laboratory ID:	06-002-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0023	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*92*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*109*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-4**					
Laboratory ID:	06-002-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0059	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0021	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.0087	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.016	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-4**					
Laboratory ID:	06-002-03					
1,1,2-Trichloroethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0043	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.00087	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*74-131*				
Toluene-d8	*93*	*78-128*				
4-Bromofluorobenzene	*104*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-22**					
Laboratory ID:	06-002-04					
Dichlorodifluoromethane	ND	0.0032	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.016	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Acetone	0.055	0.024	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.044	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.012	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.012	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Chloroform	0.0026	0.0024	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Benzene	0.0024	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	0.0055	0.0024	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.012	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.012	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-22**					
Laboratory ID:	06-002-04					
1,1,2-Trichloroethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.012	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.012	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*104*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-12**					
Laboratory ID:	06-002-05					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0065	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0023	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.0095	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.017	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-12**					
Laboratory ID:	06-002-05					
1,1,2-Trichloroethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0019	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0048	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.00095	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*88*	*74-131*				
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*108*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-19**					
Laboratory ID:	06-002-06					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0080	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0028	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.012	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.021	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-19**					
Laboratory ID:	06-002-06					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0023	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0058	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*74-131*				
Toluene-d8	*94*	*78-128*				
4-Bromofluorobenzene	*102*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-15**					
Laboratory ID:	06-002-07					
Dichlorodifluoromethane	ND	0.0022	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.011	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.017	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.030	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-15**					
Laboratory ID:	06-002-07					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0033	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*74-131*				
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*110*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-7**					
Laboratory ID:	06-002-08					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0053	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0019	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.0077	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.014	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-7**					
Laboratory ID:	06-002-08					
1,1,2-Trichloroethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0015	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0039	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.00077	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*74-131*				
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*109*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-21**					
Laboratory ID:	06-002-09					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0054	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0019	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.0080	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.014	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-21**					
Laboratory ID:	06-002-09					
1,1,2-Trichloroethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0016	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0040	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.00080	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*74-131*				
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*101*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-11**					
Laboratory ID:	06-002-10					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-2-20	6-2-20	
Chloromethane	ND	0.0046	EPA 8260D	6-2-20	6-2-20	
Vinyl Chloride	ND	0.00081	EPA 8260D	6-2-20	6-2-20	
Bromomethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Chloroethane	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Trichlorofluoromethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Acetone	ND	0.0062	EPA 8260D	6-2-20	6-2-20	
Iodomethane	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Carbon Disulfide	ND	0.00081	EPA 8260D	6-2-20	6-2-20	
Methylene Chloride	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Vinyl Acetate	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
2,2-Dichloropropane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
2-Butanone	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Bromochloromethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Chloroform	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Carbon Tetrachloride	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloropropene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Benzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloroethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Trichloroethene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloropropane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Dibromomethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Bromodichloromethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Toluene	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-11**					
Laboratory ID:	06-002-10					
1,1,2-Trichloroethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Tetrachloroethene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,3-Dichloropropane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
2-Hexanone	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Dibromochloromethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromoethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Chlorobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Ethylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
m,p-Xylene	ND	0.0012	EPA 8260D	6-2-20	6-2-20	
o-Xylene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Styrene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Bromoform	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Isopropylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Bromobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.0031	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.00062	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*97*	*74-131*				
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*93*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-9**					
Laboratory ID:	06-002-11					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0056	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0020	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	0.0095	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Acetone	0.010	0.0083	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.015	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-9**					
Laboratory ID:	06-002-11					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0017	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0042	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.00083	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.043	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.22	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.22	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.22	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.043	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*79*	*74-131*				
Toluene-d8	*94*	*78-128*				
4-Bromofluorobenzene	*100*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-14**					
Laboratory ID:	06-002-12					
Dichlorodifluoromethane	ND	0.0016	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0084	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0030	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Acetone	0.044	0.012	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.022	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Butanone	0.0079	0.0062	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-14**					
Laboratory ID:	06-002-12					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0025	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0062	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*18*	*74-131*				Q
Toluene-d8	*96*	*78-128*				
4-Bromofluorobenzene	*109*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-5**					
Laboratory ID:	06-002-13					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Acetone	0.038	0.0074	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
2-Butanone	0.0064	0.0037	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-5**					
Laboratory ID:	06-002-13					
1,1,2-Trichloroethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0015	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	6-1-20	6-2-20	
n-Propylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
2-Chlorotoluene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
4-Chlorotoluene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
tert-Butylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
sec-Butylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,3-Dichlorobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
p-Isopropyltoluene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,4-Dichlorobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2-Dichlorobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
n-Butylbenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Hexachlorobutadiene	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
Naphthalene	ND	0.0037	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.00074	EPA 8260D	6-1-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*96*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-3**					
Laboratory ID:	06-002-14					
Dichlorodifluoromethane	ND	0.0014	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Acetone	0.045	0.010	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	0.0034	0.0010	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0066	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
2-Butanone	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-3**					
Laboratory ID:	06-002-14					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0021	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	6-1-20	6-2-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
Naphthalene	ND	0.0051	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*93*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-1**					
Laboratory ID:	06-002-15					
Dichlorodifluoromethane	ND	0.0016	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Acetone	0.053	0.011	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0073	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
2-Butanone	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-1**					
Laboratory ID:	06-002-15					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0023	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0057	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.077	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.38	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.38	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.38	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.077	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*111*	*74-131*				
Toluene-d8	*82*	*78-128*				
4-Bromofluorobenzene	*75*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-10**					
Laboratory ID:	06-002-16					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Acetone	ND	0.0094	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0060	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Butanone	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-10**					
Laboratory ID:	06-002-16					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0019	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.042	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.21	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.21	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.21	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.042	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*113*	*74-131*				
Toluene-d8	*86*	*78-128*				
4-Bromofluorobenzene	*86*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-13**					
Laboratory ID:	06-002-17					
Dichlorodifluoromethane	ND	0.00093	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Acetone	0.024	0.0066	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0042	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
2-Butanone	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-13**					
Laboratory ID:	06-002-17					
1,1,2-Trichloroethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0013	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichloropropane	ND	0.00086	EPA 8260D	6-1-20	6-2-20	
n-Propylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
2-Chlorotoluene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
4-Chlorotoluene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
tert-Butylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
sec-Butylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,3-Dichlorobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
p-Isopropyltoluene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,4-Dichlorobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2-Dichlorobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
n-Butylbenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Hexachlorobutadiene	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
Naphthalene	ND	0.0033	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.00066	EPA 8260D	6-1-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*74-131*				
Toluene-d8	*91*	*78-128*				
4-Bromofluorobenzene	*87*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-18**					
Laboratory ID:	06-002-18					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Acetone	0.040	0.0094	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0060	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Butanone	0.0070	0.0047	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-18**					
Laboratory ID:	06-002-18					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0019	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	6-1-20	6-2-20	
n-Propylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
2-Chlorotoluene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
4-Chlorotoluene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
tert-Butylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
sec-Butylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,3-Dichlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
p-Isopropyltoluene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,4-Dichlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dichlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
n-Butylbenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Hexachlorobutadiene	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
Naphthalene	ND	0.0047	EPA 8260D	6-1-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.00094	EPA 8260D	6-1-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*96*	*74-131*				
Toluene-d8	*95*	*78-128*				
4-Bromofluorobenzene	*94*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-20**					
Laboratory ID:	06-002-19					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	6-1-20	6-2-20	
Chloromethane	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
Vinyl Chloride	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Bromomethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Chloroethane	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
Trichlorofluoromethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Acetone	0.084	0.0078	EPA 8260D	6-1-20	6-2-20	
Iodomethane	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
Carbon Disulfide	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-1-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloroethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Vinyl Acetate	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
2,2-Dichloropropane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
2-Butanone	0.014	0.0039	EPA 8260D	6-1-20	6-2-20	
Bromochloromethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Chloroform	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Carbon Tetrachloride	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,1-Dichloropropene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Benzene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloroethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Trichloroethene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,2-Dichloropropane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Dibromomethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Bromodichloromethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Methyl Isobutyl Ketone	0.0062	0.0039	EPA 8260D	6-1-20	6-2-20	
Toluene	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-20**					
Laboratory ID:	06-002-19					
1,1,2-Trichloroethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Tetrachloroethene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,3-Dichloropropane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
2-Hexanone	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
Dibromochloromethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,2-Dibromoethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Chlorobenzene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Ethylbenzene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
m,p-Xylene	ND	0.0016	EPA 8260D	6-1-20	6-2-20	
o-Xylene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Styrene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Bromoform	ND	0.0039	EPA 8260D	6-1-20	6-2-20	
Isopropylbenzene	ND	0.00078	EPA 8260D	6-1-20	6-2-20	
Bromobenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.041	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.21	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.21	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.21	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.041	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*117*	*74-131*				
Toluene-d8	*84*	*78-128*				
4-Bromofluorobenzene	*81*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-6**					
Laboratory ID:	06-002-20					
Dichlorodifluoromethane	ND	0.064	EPA 8260D	6-2-20	6-2-20	
Chloromethane	ND	0.28	EPA 8260D	6-2-20	6-2-20	
Vinyl Chloride	ND	0.049	EPA 8260D	6-2-20	6-2-20	
Bromomethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Chloroethane	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Trichlorofluoromethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Acetone	ND	0.38	EPA 8260D	6-2-20	6-2-20	
Iodomethane	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Carbon Disulfide	ND	0.049	EPA 8260D	6-2-20	6-2-20	
Methylene Chloride	ND	0.19	EPA 8260D	6-2-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Methyl t-Butyl Ether	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Vinyl Acetate	ND	0.19	EPA 8260D	6-2-20	6-2-20	
2,2-Dichloropropane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
2-Butanone	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Bromochloromethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Chloroform	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,1,1-Trichloroethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Carbon Tetrachloride	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloropropene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Benzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloroethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Trichloroethene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloropropane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Dibromomethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Bromodichloromethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.19	EPA 8260D	6-2-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Toluene	ND	0.19	EPA 8260D	6-2-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.038	EPA 8260D	6-2-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-6**					
Laboratory ID:	06-002-20					
1,1,2-Trichloroethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Tetrachloroethene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,3-Dichloropropane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
2-Hexanone	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Dibromochloromethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromoethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Chlorobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Ethylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
m,p-Xylene	ND	0.076	EPA 8260D	6-2-20	6-2-20	
o-Xylene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Styrene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Bromoform	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Isopropylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Bromobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.038	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.19	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.19	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.19	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.038	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*94*	*74-131*				
Toluene-d8	*100*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-16**					
Laboratory ID:	06-002-21					
Dichlorodifluoromethane	ND	0.013	EPA 8260D	6-2-20	6-2-20	
Chloromethane	ND	0.058	EPA 8260D	6-2-20	6-2-20	
Vinyl Chloride	ND	0.010	EPA 8260D	6-2-20	6-2-20	
Bromomethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Chloroethane	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Trichlorofluoromethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Acetone	ND	0.079	EPA 8260D	6-2-20	6-2-20	
Iodomethane	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Carbon Disulfide	0.011	0.010	EPA 8260D	6-2-20	6-2-20	Y
Methylene Chloride	ND	0.039	EPA 8260D	6-2-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Methyl t-Butyl Ether	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Vinyl Acetate	ND	0.039	EPA 8260D	6-2-20	6-2-20	
2,2-Dichloropropane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
2-Butanone	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Bromochloromethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Chloroform	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,1,1-Trichloroethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Carbon Tetrachloride	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloropropene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Benzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloroethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Trichloroethene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloropropane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Dibromomethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Bromodichloromethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.039	EPA 8260D	6-2-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Toluene	ND	0.039	EPA 8260D	6-2-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-16**					
Laboratory ID:	06-002-21					
1,1,2-Trichloroethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Tetrachloroethene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,3-Dichloropropane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
2-Hexanone	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Dibromochloromethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromoethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Chlorobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Ethylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
m,p-Xylene	ND	0.016	EPA 8260D	6-2-20	6-2-20	
o-Xylene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Styrene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Bromoform	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Isopropylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Bromobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.039	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.039	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.039	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.0079	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*90*	*74-131*				
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*91*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-17**					
Laboratory ID:	06-002-22					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	6-2-20	6-2-20	
Chloromethane	ND	0.0064	EPA 8260D	6-2-20	6-2-20	
Vinyl Chloride	ND	0.0011	EPA 8260D	6-2-20	6-2-20	
Bromomethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Chloroethane	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
Trichlorofluoromethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Acetone	0.10	0.0087	EPA 8260D	6-2-20	6-2-20	
Iodomethane	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
Carbon Disulfide	0.0012	0.0011	EPA 8260D	6-2-20	6-2-20	Y
Methylene Chloride	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Methyl t-Butyl Ether	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Vinyl Acetate	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
2,2-Dichloropropane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
2-Butanone	0.017	0.0044	EPA 8260D	6-2-20	6-2-20	
Bromochloromethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Chloroform	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,1,1-Trichloroethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Carbon Tetrachloride	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloropropene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Benzene	0.00091	0.00087	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloroethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Trichloroethene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloropropane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Dibromomethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Bromodichloromethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Methyl Isobutyl Ketone	0.0050	0.0044	EPA 8260D	6-2-20	6-2-20	
Toluene	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-17**					
Laboratory ID:	06-002-22					
1,1,2-Trichloroethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Tetrachloroethene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,3-Dichloropropane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
2-Hexanone	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
Dibromochloromethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromoethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Chlorobenzene	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.00087	EPA 8260D	6-2-20	6-2-20	
Ethylbenzene	0.0057	0.00087	EPA 8260D	6-2-20	6-2-20	
m,p-Xylene	0.15	0.091	EPA 8260D	6-2-20	6-2-20	
o-Xylene	0.051	0.045	EPA 8260D	6-2-20	6-2-20	
Styrene	0.0075	0.00087	EPA 8260D	6-2-20	6-2-20	
Bromoform	ND	0.0044	EPA 8260D	6-2-20	6-2-20	
Isopropylbenzene	0.0010	0.00087	EPA 8260D	6-2-20	6-2-20	
Bromobenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.045	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.23	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.23	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.23	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.045	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*103*	*74-131*				
Toluene-d8	*86*	*78-128*				
4-Bromofluorobenzene	*72*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.010	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*101*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601S2					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	6-1-20	6-1-20	
Chloromethane	ND	0.0068	EPA 8260D	6-1-20	6-1-20	
Vinyl Chloride	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromomethane	ND	0.0024	EPA 8260D	6-1-20	6-1-20	
Chloroethane	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Acetone	ND	0.010	EPA 8260D	6-1-20	6-1-20	
Iodomethane	ND	0.018	EPA 8260D	6-1-20	6-1-20	
Carbon Disulfide	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Butanone	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chloroform	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Benzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Toluene	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-1-20	6-1-20	
o-Xylene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Styrene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromoform	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
Naphthalene	ND	0.0050	EPA 8260D	6-1-20	6-1-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-1-20	6-1-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*87*	*74-131*				
Toluene-d8	*98*	*78-128*				
4-Bromofluorobenzene	*115*	*71-130*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 1 of 2

Matrix: Solid
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602S2					
Dichlorodifluoromethane	ND	0.0017	EPA 8260D	6-2-20	6-2-20	
Chloromethane	ND	0.0073	EPA 8260D	6-2-20	6-2-20	
Vinyl Chloride	ND	0.0013	EPA 8260D	6-2-20	6-2-20	
Bromomethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Chloroethane	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Acetone	ND	0.010	EPA 8260D	6-2-20	6-2-20	
Iodomethane	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Carbon Disulfide	ND	0.0013	EPA 8260D	6-2-20	6-2-20	
Methylene Chloride	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Vinyl Acetate	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
2-Butanone	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Bromochloromethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Chloroform	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Benzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Trichloroethene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Dibromomethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Bromodichloromethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Toluene	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Tetrachloroethene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
2-Hexanone	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Dibromochloromethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Chlorobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Ethylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
m,p-Xylene	ND	0.0020	EPA 8260D	6-2-20	6-2-20	
o-Xylene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Styrene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Bromoform	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Isopropylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Bromobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
n-Propylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
2-Chlorotoluene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
4-Chlorotoluene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
tert-Butylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
sec-Butylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
n-Butylbenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
Naphthalene	ND	0.0050	EPA 8260D	6-2-20	6-2-20	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*89*	*74-131*				
Toluene-d8	*99*	*78-128*				
4-Bromofluorobenzene	*102*	*71-130*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Solid
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0601S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0537**	**0.0578**	0.0500	0.0500	107	116	55-126	7	17	
Benzene	**0.0483**	**0.0520**	0.0500	0.0500	97	104	65-121	7	16	
Trichloroethene	**0.0521**	**0.0573**	0.0500	0.0500	104	115	74-126	10	16	
Toluene	**0.0512**	**0.0545**	0.0500	0.0500	102	109	71-121	6	16	
Chlorobenzene	**0.0525**	**0.0578**	0.0500	0.0500	105	116	72-123	10	15	
Surrogate:										
Dibromofluoromethane					*98*	*98*	*74-131*			
Toluene-d8					*100*	*97*	*78-128*			
4-Bromofluorobenzene					*100*	*99*	*71-130*			
Laboratory ID:	SB0601S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0530**	**0.0483**	0.0500	0.0500	106	97	55-126	9	17	
Benzene	**0.0501**	**0.0446**	0.0500	0.0500	100	89	65-121	12	16	
Trichloroethene	**0.0564**	**0.0531**	0.0500	0.0500	113	106	74-126	6	16	
Toluene	**0.0521**	**0.0488**	0.0500	0.0500	104	98	71-121	7	16	
Chlorobenzene	**0.0490**	**0.0468**	0.0500	0.0500	98	94	72-123	5	15	
Surrogate:										
Dibromofluoromethane					*86*	*82*	*74-131*			
Toluene-d8					*96*	*96*	*78-128*			
4-Bromofluorobenzene					*102*	*107*	*71-130*			
Laboratory ID:	SB0602S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0449**	**0.0448**	0.0500	0.0500	90	90	55-126	0	17	
Benzene	**0.0429**	**0.0430**	0.0500	0.0500	86	86	65-121	0	16	
Trichloroethene	**0.0492**	**0.0492**	0.0500	0.0500	98	98	74-126	0	16	
Toluene	**0.0478**	**0.0481**	0.0500	0.0500	96	96	71-121	1	16	
Chlorobenzene	**0.0491**	**0.0502**	0.0500	0.0500	98	100	72-123	2	15	
Surrogate:										
Dibromofluoromethane					*89*	*88*	*74-131*			
Toluene-d8					*102*	*98*	*78-128*			
4-Bromofluorobenzene					*109*	*104*	*71-130*			

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-12**					
Laboratory ID:	06-002-05					
Naphthalene	**0.018**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
2-Methylnaphthalene	**0.0093**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
1-Methylnaphthalene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Acenaphthylene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Acenaphthene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Fluorene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Phenanthrene	**0.051**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Anthracene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Fluoranthene	**0.065**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Pyrene	**0.038**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[a]anthracene	**0.015**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Chrysene	**0.038**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[b]fluoranthene	**0.026**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[a]pyrene	**0.013**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Indeno(1,2,3-c,d)pyrene	**0.013**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[g,h,i]perylene	**0.015**	0.0072	EPA 8270E/SIM	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*46 - 113*				
Pyrene-d10	*94*	*45 - 114*				
Terphenyl-d14	*92*	*49 - 121*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PAHs EPA 8270E/SIM

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-6**					
Laboratory ID:	06-002-20					
Naphthalene	**0.047**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
2-Methylnaphthalene	**0.085**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
1-Methylnaphthalene	**0.061**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Acenaphthylene	**ND**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Acenaphthene	**0.036**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Fluorene	**0.067**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Phenanthrene	**0.25**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Anthracene	**ND**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Fluoranthene	**0.11**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Pyrene	**0.15**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[a]anthracene	**0.053**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Chrysene	**0.10**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[b]fluoranthene	**0.082**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo(j,k)fluoranthene	**ND**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[a]pyrene	**0.039**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Indeno(1,2,3-c,d)pyrene	**0.038**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Dibenz[a,h]anthracene	**ND**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[g,h,i]perylene	**0.041**	0.034	EPA 8270E/SIM	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*72*	*46 - 113*				
Pyrene-d10	*70*	*45 - 114*				
Terphenyl-d14	*78*	*49 - 121*				

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602S1					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*78*	*46 - 113*				
Pyrene-d10	*98*	*45 - 114*				
Terphenyl-d14	*92*	*49 - 121*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-236-08										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0730**	**0.0686**	0.0833	0.0833	ND	88	82	51 - 115	6	26	
Acenaphthylene	**0.0711**	**0.0645**	0.0833	0.0833	ND	85	77	53 - 121	10	24	
Acenaphthene	**0.0727**	**0.0668**	0.0833	0.0833	ND	87	80	52 - 121	8	25	
Fluorene	**0.0805**	**0.0755**	0.0833	0.0833	ND	97	91	58 - 127	6	23	
Phenanthrene	**0.0730**	**0.0702**	0.0833	0.0833	ND	88	84	46 - 129	4	28	
Anthracene	**0.0903**	**0.0892**	0.0833	0.0833	ND	108	107	57 - 124	1	21	
Fluoranthene	**0.0854**	**0.0837**	0.0833	0.0833	ND	103	100	46 - 136	2	29	
Pyrene	**0.0878**	**0.0837**	0.0833	0.0833	ND	105	100	41 - 136	5	32	
Benzo[a]anthracene	**0.0921**	**0.0834**	0.0833	0.0833	ND	111	100	56 - 136	10	25	
Chrysene	**0.0874**	**0.0893**	0.0833	0.0833	ND	105	107	49 - 130	2	22	
Benzo[b]fluoranthene	**0.0884**	**0.0757**	0.0833	0.0833	ND	106	91	51 - 135	15	26	
Benzo(j,k)fluoranthene	**0.0873**	**0.0935**	0.0833	0.0833	ND	105	112	56 - 124	7	23	
Benzo[a]pyrene	**0.0874**	**0.0847**	0.0833	0.0833	ND	105	102	54 - 133	3	26	
Indeno(1,2,3-c,d)pyrene	**0.0813**	**0.0756**	0.0833	0.0833	ND	98	91	52 - 134	7	20	
Dibenz[a,h]anthracene	**0.0854**	**0.0823**	0.0833	0.0833	ND	103	99	58 - 127	4	17	
Benzo[g,h,i]perylene	**0.0888**	**0.0855**	0.0833	0.0833	ND	107	103	54 - 129	4	21	
Surrogate:											
2-Fluorobiphenyl						*76*	*72*	*46 - 113*			
Pyrene-d10						*98*	*93*	*45 - 114*			
Terphenyl-d14						*90*	*88*	*49 - 121*			

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-2**					
Laboratory ID:	06-002-01					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.096**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**0.50**	0.051	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*94*	*46-125*				
Client ID:	**AW-8**					
Laboratory ID:	06-002-02					
Aroclor 1016	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*101*	*46-125*				
Client ID:	**AW-4**					
Laboratory ID:	06-002-03					
Aroclor 1016	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*104*	*46-125*				

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and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-22**					
Laboratory ID:	06-002-04					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.17**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**0.17**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*83*	*46-125*				
Client ID:	**AW-12**					
Laboratory ID:	06-002-05					
Aroclor 1016	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*88*	*46-125*				
Client ID:	**AW-19**					
Laboratory ID:	06-002-06					
Aroclor 1016	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.17**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**0.11**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.063	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*87*	*46-125*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-15**					
Laboratory ID:	06-002-07					
Aroclor 1016	**ND**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**0.11**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.99**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**0.23**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.076	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.076	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*70*	*46-125*				
Client ID:	**AW-7**					
Laboratory ID:	06-002-08					
Aroclor 1016	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*46-125*				
Client ID:	**AW-21**					
Laboratory ID:	06-002-09					
Aroclor 1016	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.053	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*96*	*46-125*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-11**					
Laboratory ID:	06-002-10					
Aroclor 1016	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.054	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*102*	*46-125*				
Client ID:	**AW-9**					
Laboratory ID:	06-002-11					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**0.078**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.23**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**0.39**	0.051	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*99*	*46-125*				
Client ID:	**AW-14**					
Laboratory ID:	06-002-12					
Aroclor 1016	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.059	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*77*	*46-125*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-5**					
Laboratory ID:	06-002-13					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*84*	*46-125*				
Client ID:	**AW-3**					
Laboratory ID:	06-002-14					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.28**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**0.12**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*86*	*46-125*				
Client ID:	**AW-1**					
Laboratory ID:	06-002-15					
Aroclor 1016	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.082**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.060	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*80*	*46-125*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-10**					
Laboratory ID:	06-002-16					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*95*	*46-125*				
Client ID:	**AW-13**					
Laboratory ID:	06-002-17					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.079**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**0.16**	0.050	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*79*	*46-125*				
Client ID:	**AW-18**					
Laboratory ID:	06-002-18					
Aroclor 1016	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.052	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*105*	*46-125*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-20**					
Laboratory ID:	06-002-19					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.14**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**0.10**	0.050	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*78*	*46-125*				
Client ID:	**AW-6**					
Laboratory ID:	06-002-20					
Aroclor 1016	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**0.13**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.051	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**0.085**	0.051	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*121*	*46-125*				
Client ID:	**AW-16**					
Laboratory ID:	06-002-21					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1254	**0.42**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-3-20	
Aroclor 1268	**0.37**	0.050	EPA 8082A	6-2-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*110*	*46-125*				

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-17**					
Laboratory ID:	06-002-22					
Aroclor 1016	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1221	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1232	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1242	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1248	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1254	**1.5**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1260	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1262	**ND**	0.59	EPA 8082A	6-2-20	6-3-20	
Aroclor 1268	**11**	0.59	EPA 8082A	6-2-20	6-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	---	*46-125*				S

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602S1					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*107*	*46-125*				
Laboratory ID:	MB0602S2					
Aroclor 1016	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1221	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1232	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1242	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1248	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1254	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1260	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1262	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Aroclor 1268	**ND**	0.050	EPA 8082A	6-2-20	6-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*87*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0602S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.427**	**0.470**	0.500	0.500	N/A	**85**	**94**	50-134	10	18	
Surrogate:											
DCB						*86*	*90*	*46-125*			
Laboratory ID:	SB0602S2										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.487**	**0.469**	0.500	0.500	N/A	**97**	**94**	50-134	4	18	
Surrogate:											
DCB						*107*	*107*	*46-125*			

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-2**					
Laboratory ID:	06-002-01					
Arsenic	**16**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**140**	5.1	EPA 6010D	6-2-20	6-3-20	
Cadmium	**2.9**	1.0	EPA 6010D	6-2-20	6-3-20	
Chromium	**1100**	2.5	EPA 6010D	6-2-20	6-2-20	
Copper	**650**	2.0	EPA 6010D	6-2-20	6-3-20	
Lead	**190**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**710**	13	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	1.0	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**550**	5.1	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-8**					
Laboratory ID:	06-002-02					
Arsenic	**55**	13	EPA 6010D	6-2-20	6-3-20	
Barium	**160**	6.3	EPA 6010D	6-2-20	6-3-20	
Cadmium	**33**	1.3	EPA 6010D	6-2-20	6-3-20	
Chromium	**5900**	32	EPA 6010D	6-2-20	6-3-20	
Copper	**2200**	63	EPA 6010D	6-2-20	6-3-20	
Lead	**4200**	13	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.32	EPA 7471B	6-3-20	6-3-20	
Nickel	**3700**	160	EPA 6010D	6-2-20	6-3-20	
Selenium	**ND**	13	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	13	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**8500**	160	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-4**					
Laboratory ID:	06-002-03					
Arsenic	**15**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**80**	5.2	EPA 6010D	6-2-20	6-3-20	
Cadmium	**2.6**	1.0	EPA 6010D	6-2-20	6-3-20	
Chromium	**10000**	26	EPA 6010D	6-2-20	6-3-20	
Copper	**380**	52	EPA 6010D	6-2-20	6-3-20	
Lead	**150**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.26	EPA 7471B	6-3-20	6-3-20	
Nickel	**2600**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**16**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	10	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**1200**	130	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-22**					
Laboratory ID:	06-002-04					
Arsenic	**21**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**460**	5.0	EPA 6010D	6-2-20	6-3-20	
Cadmium	**10**	1.0	EPA 6010D	6-2-20	6-3-20	
Chromium	**2100**	25	EPA 6010D	6-2-20	6-3-20	
Copper	**1600**	50	EPA 6010D	6-2-20	6-3-20	
Lead	**1000**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**0.37**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**970**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**27**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	10	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**3000**	130	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-12**					
Laboratory ID:	06-002-05					
Arsenic	**19**	11	EPA 6010D	6-2-20	6-3-20	
Barium	**140**	5.4	EPA 6010D	6-2-20	6-3-20	
Cadmium	**2.2**	1.1	EPA 6010D	6-2-20	6-3-20	
Chromium	**9400**	27	EPA 6010D	6-2-20	6-3-20	
Copper	**1100**	2.2	EPA 6010D	6-2-20	6-3-20	
Lead	**220**	11	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.27	EPA 7471B	6-3-20	6-3-20	
Nickel	**2400**	140	EPA 6010D	6-2-20	6-3-20	
Selenium	**27**	11	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	11	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**620**	5.4	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-19**					
Laboratory ID:	06-002-06					
Arsenic	**39**	13	EPA 6010D	6-2-20	6-3-20	
Barium	**310**	6.3	EPA 6010D	6-2-20	6-3-20	
Cadmium	**7.4**	1.3	EPA 6010D	6-2-20	6-3-20	
Chromium	**6100**	13	EPA 6010D	6-2-20	6-2-20	
Copper	**1800**	25	EPA 6010D	6-2-20	6-2-20	
Lead	**720**	13	EPA 6010D	6-2-20	6-3-20	
Mercury	**0.58**	0.31	EPA 7471B	6-3-20	6-3-20	
Nickel	**3900**	63	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	13	EPA 6010D	6-2-20	6-3-20	
Silver	**13**	1.3	EPA 6010D	6-2-20	6-3-20	
Zinc	**1900**	63	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-15**					
Laboratory ID:	06-002-07					
Arsenic	**41**	7.6	EPA 6010D	6-2-20	6-2-20	
Barium	**680**	38	EPA 6010D	6-2-20	6-2-20	
Cadmium	**46**	1.5	EPA 6010D	6-2-20	6-3-20	
Chromium	**4200**	7.6	EPA 6010D	6-2-20	6-2-20	
Copper	**1700**	15	EPA 6010D	6-2-20	6-2-20	
Lead	**2400**	15	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.38	EPA 7471B	6-3-20	6-3-20	
Nickel	**3200**	38	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	15	EPA 6010D	6-2-20	6-3-20	
Silver	**17**	1.5	EPA 6010D	6-2-20	6-3-20	
Zinc	**3200**	38	EPA 6010D	6-2-20	6-2-20	
Client ID:	**AW-7**					
Laboratory ID:	06-002-08					
Arsenic	**19**	11	EPA 6010D	6-2-20	6-3-20	
Barium	**86**	5.3	EPA 6010D	6-2-20	6-3-20	
Cadmium	**ND**	0.53	EPA 6010D	6-2-20	6-2-20	
Chromium	**2300**	5.3	EPA 6010D	6-2-20	6-2-20	
Copper	**630**	2.1	EPA 6010D	6-2-20	6-3-20	
Lead	**130**	11	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.27	EPA 7471B	6-3-20	6-3-20	
Nickel	**3500**	27	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	11	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.3	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**170**	5.3	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-21**					
Laboratory ID:	06-002-09					
Arsenic	**32**	11	EPA 6010D	6-2-20	6-3-20	
Barium	**1900**	27	EPA 6010D	6-2-20	6-2-20	
Cadmium	**2.2**	1.1	EPA 6010D	6-2-20	6-3-20	
Chromium	**1700**	5.3	EPA 6010D	6-2-20	6-2-20	
Copper	**550**	2.1	EPA 6010D	6-2-20	6-3-20	
Lead	**210**	11	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.27	EPA 7471B	6-3-20	6-3-20	
Nickel	**2300**	27	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	11	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.3	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**260**	5.3	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-11**					
Laboratory ID:	06-002-10					
Arsenic	**23**	11	EPA 6010D	6-2-20	6-3-20	
Barium	**48**	5.4	EPA 6010D	6-2-20	6-3-20	
Cadmium	**ND**	0.54	EPA 6010D	6-2-20	6-2-20	
Chromium	**8800**	27	EPA 6010D	6-2-20	6-3-20	
Copper	**1400**	54	EPA 6010D	6-2-20	6-3-20	
Lead	**66**	11	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.27	EPA 7471B	6-3-20	6-3-20	
Nickel	**6600**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**ND**	11	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.4	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**170**	5.4	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-9**					
Laboratory ID:	06-002-11					
Arsenic	**45**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**97**	5.1	EPA 6010D	6-2-20	6-3-20	
Cadmium	**6.5**	1.0	EPA 6010D	6-2-20	6-3-20	
Chromium	**4000**	26	EPA 6010D	6-2-20	6-3-20	
Copper	**1900**	51	EPA 6010D	6-2-20	6-3-20	
Lead	**410**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.26	EPA 7471B	6-3-20	6-3-20	
Nickel	**5800**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**ND**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.1	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**400**	5.1	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-14**					
Laboratory ID:	06-002-12					
Arsenic	**15**	12	EPA 6010D	6-2-20	6-3-20	
Barium	**150**	5.9	EPA 6010D	6-2-20	6-3-20	
Cadmium	**3.3**	1.2	EPA 6010D	6-2-20	6-3-20	
Chromium	**2700**	5.9	EPA 6010D	6-2-20	6-2-20	
Copper	**510**	2.4	EPA 6010D	6-2-20	6-3-20	
Lead	**190**	12	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.29	EPA 7471B	6-3-20	6-3-20	
Nickel	**1700**	29	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	12	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.9	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**290**	5.9	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-5**					
Laboratory ID:	06-002-13					
Arsenic	**65**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**20**	5.0	EPA 6010D	6-2-20	6-3-20	
Cadmium	**ND**	0.50	EPA 6010D	6-2-20	6-2-20	
Chromium	**70000**	250	EPA 6010D	6-2-20	6-3-20	
Copper	**1400**	50	EPA 6010D	6-2-20	6-3-20	
Lead	**110**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**13000**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**ND**	20	EPA 6010D	6-2-20	6-3-20	U1
Silver	**ND**	10	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**230**	5.0	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-3**					
Laboratory ID:	06-002-14					
Arsenic	**50**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**99**	5.1	EPA 6010D	6-2-20	6-3-20	
Cadmium	**2.8**	1.0	EPA 6010D	6-2-20	6-3-20	
Chromium	**5400**	10	EPA 6010D	6-2-20	6-2-20	
Copper	**2300**	21	EPA 6010D	6-2-20	6-2-20	
Lead	**310**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.26	EPA 7471B	6-3-20	6-3-20	
Nickel	**6400**	51	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.1	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**590**	5.1	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-1**					
Laboratory ID:	06-002-15					
Arsenic	**17**	12	EPA 6010D	6-2-20	6-3-20	
Barium	**90**	6.0	EPA 6010D	6-2-20	6-3-20	
Cadmium	**4.2**	1.2	EPA 6010D	6-2-20	6-3-20	
Chromium	**2300**	6.0	EPA 6010D	6-2-20	6-2-20	
Copper	**690**	2.4	EPA 6010D	6-2-20	6-3-20	
Lead	**1400**	12	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.30	EPA 7471B	6-3-20	6-3-20	
Nickel	**2300**	30	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	12	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	1.2	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**390**	6.0	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-10**					
Laboratory ID:	06-002-16					
Arsenic	**29**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**13**	5.1	EPA 6010D	6-2-20	6-3-20	
Cadmium	**ND**	0.51	EPA 6010D	6-2-20	6-2-20	
Chromium	**4200**	25	EPA 6010D	6-2-20	6-3-20	
Copper	**2800**	51	EPA 6010D	6-2-20	6-3-20	
Lead	**84**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**8600**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**ND**	20	EPA 6010D	6-2-20	6-2-20	U1
Silver	**ND**	10	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**120**	5.1	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-13**					
Laboratory ID:	06-002-17					
Arsenic	**37**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**57**	5.0	EPA 6010D	6-2-20	6-3-20	
Cadmium	**ND**	0.50	EPA 6010D	6-2-20	6-2-20	
Chromium	**4700**	10	EPA 6010D	6-2-20	6-2-20	
Copper	**1500**	20	EPA 6010D	6-2-20	6-2-20	
Lead	**110**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**7400**	50	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	10	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	5.0	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**170**	5.0	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-18**					
Laboratory ID:	06-002-18					
Arsenic	**14**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**75**	5.2	EPA 6010D	6-2-20	6-3-20	
Cadmium	**ND**	0.52	EPA 6010D	6-2-20	6-2-20	
Chromium	**390**	1.0	EPA 6010D	6-2-20	6-3-20	
Copper	**2900**	10	EPA 6010D	6-2-20	6-2-20	
Lead	**53**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.26	EPA 7471B	6-3-20	6-3-20	
Nickel	**4400**	26	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	1.0	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**93**	5.2	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-20**					
Laboratory ID:	06-002-19					
Arsenic	**47**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**110**	5.0	EPA 6010D	6-2-20	6-3-20	
Cadmium	**1.8**	1.0	EPA 6010D	6-2-20	6-3-20	
Chromium	**2900**	5.0	EPA 6010D	6-2-20	6-3-20	
Copper	**1700**	10	EPA 6010D	6-2-20	6-2-20	
Lead	**480**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**5000**	25	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	10	EPA 6010D	6-2-20	6-3-20	
Silver	**ND**	5.0	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**340**	5.0	EPA 6010D	6-2-20	6-3-20	
Client ID:	**AW-6**					
Laboratory ID:	06-002-20					
Arsenic	**54**	10	EPA 6010D	6-2-20	6-3-20	
Barium	**60**	5.1	EPA 6010D	6-2-20	6-3-20	
Cadmium	**0.54**	0.51	EPA 6010D	6-2-20	6-2-20	
Chromium	**2000**	25	EPA 6010D	6-2-20	2-20-20	
Copper	**1200**	51	EPA 6010D	6-2-20	6-3-20	
Lead	**200**	10	EPA 6010D	6-2-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**3800**	130	EPA 6010D	6-2-20	6-3-20	
Selenium	**ND**	15	EPA 6010D	6-2-20	6-2-20	U1
Silver	**ND**	1.0	EPA 6010D	6-2-20	6-3-20	U1
Zinc	**260**	5.1	EPA 6010D	6-2-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-16**					
Laboratory ID:	06-002-21					
Arsenic	**42**	10	EPA 6010D	6-1-20	6-3-20	
Barium	**83**	5.0	EPA 6010D	6-1-20	6-3-20	
Cadmium	**6.4**	1.0	EPA 6010D	6-1-20	6-3-20	
Chromium	**7700**	25	EPA 6010D	6-1-20	6-1-20	
Copper	**3200**	50	EPA 6010D	6-1-20	6-1-20	
Lead	**300**	10	EPA 6010D	6-1-20	6-3-20	
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	
Nickel	**8000**	130	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	10	EPA 6010D	6-1-20	6-3-20	
Silver	**ND**	5.0	EPA 6010D	6-1-20	6-3-20	U1
Zinc	**990**	130	EPA 6010D	6-1-20	6-1-20	
Client ID:	**AW-17**					
Laboratory ID:	06-002-22					
Arsenic	**110**	12	EPA 6010D	6-1-20	6-3-20	
Barium	**300**	5.9	EPA 6010D	6-1-20	6-3-20	
Cadmium	**7.2**	1.2	EPA 6010D	6-1-20	6-3-20	
Chromium	**2800**	5.9	EPA 6010D	6-1-20	6-1-20	
Copper	**2600**	12	EPA 6010D	6-1-20	6-1-20	
Lead	**820**	12	EPA 6010D	6-1-20	6-3-20	
Mercury	**ND**	0.29	EPA 7471B	6-3-20	6-3-20	
Nickel	**1900**	29	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	12	EPA 6010D	6-1-20	6-3-20	
Silver	**ND**	5.9	EPA 6010D	6-1-20	6-3-20	U1
Zinc	**1700**	29	EPA 6010D	6-1-20	6-1-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0601SH1					
Arsenic	**ND**	5.0	EPA 6010D	6-1-20	6-1-20	
Barium	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Cadmium	**ND**	0.50	EPA 6010D	6-1-20	6-1-20	
Chromium	**ND**	0.50	EPA 6010D	6-1-20	6-1-20	
Copper	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Lead	**ND**	5.0	EPA 6010D	6-1-20	6-1-20	
Nickel	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Selenium	**ND**	5.0	EPA 6010D	6-1-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-1-20	6-1-20	
Zinc	**ND**	2.5	EPA 6010D	6-1-20	6-1-20	
Laboratory ID:	MB0603S2					
Mercury	**ND**	0.25	EPA 7471B	6-1-20	6-1-20	
Laboratory ID:	MB0602SH1					
Arsenic	**ND**	5.0	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	2.5	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.50	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.50	EPA 6010D	6-2-20	6-2-20	
Copper	**ND**	1.0	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	5.0	EPA 6010D	6-2-20	6-2-20	
Nickel	**ND**	2.5	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	5.0	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	1.0	EPA 6010D	6-2-20	6-2-20	
Zinc	**ND**	2.5	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0603S1					
Mercury	**ND**	0.25	EPA 7471B	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-232-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**224**	**237**	NA	NA		NA	NA	5	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**25.1**	**28.5**	NA	NA		NA	NA	13	20	
Copper	**29.6**	**29.0**	NA	NA		NA	NA	2	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Nickel	**22.0**	**27.2**	NA	NA		NA	NA	21	20	L
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Zinc	**67.1**	**70.9**	NA	NA		NA	NA	5	20	
Laboratory ID:	06-002-21									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	06-002-07									
	ORIG	DUP								
Arsenic	**27.0**	**25.0**	NA	NA		NA	NA	8	20	
Barium	**445**	**549**	NA	NA		NA	NA	21	20	L
Cadmium	**29.9**	**33.4**	NA	NA		NA	NA	11	20	
Chromium	**2780**	**2400**	NA	NA		NA	NA	15	20	
Copper	**1140**	**1410**	NA	NA		NA	NA	21	20	L
Lead	**1550**	**1660**	NA	NA		NA	NA	7	20	
Nickel	**2130**	**2480**	NA	NA		NA	NA	15	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**11.2**	**11.6**	NA	NA		NA	NA	4	20	
Zinc	**2130**	**2310**	NA	NA		NA	NA	8	20	
Laboratory ID:	06-002-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	

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Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Solid
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-232-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**90.6**	**89.5**	100	100	ND	**91**	**90**	75-125	1	20	
Barium	**343**	**345**	100	100	224	**119**	**120**	75-125	0	20	
Cadmium	**44.8**	**45.0**	50.0	50.0	ND	**90**	**90**	75-125	0	20	
Chromium	**99.8**	**102**	100	100	25.1	**75**	**77**	75-125	2	20	
Copper	**77.4**	**78.1**	50.0	50.0	29.6	**96**	**97**	75-125	1	20	
Lead	**205**	**208**	250	250	ND	**82**	**83**	75-125	1	20	
Nickel	**99.9**	**105**	100	100	22.0	**78**	**83**	75-125	5	20	
Selenium	**75.3**	**87.5**	100	100	ND	**75**	**88**	75-125	15	20	
Silver	**20.0**	**19.9**	25.0	25.0	ND	**80**	**79**	75-125	1	20	
Zinc	**157**	**158**	100	100	67.1	**90**	**91**	75-125	1	20	
Laboratory ID:	6-002-21										
Mercury	**0.525**	**0.515**	0.500	0.500	0.0522	**95**	**93**	80-120	2	20	
Laboratory ID:	06-002-07										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**121**	**119**	100	100	27.0	**94**	**92**	75-125	1	20	
Barium	**593**	**479**	100	100	445	**148**	**34**	75-125	21	20	A,W
Cadmium	**77.9**	**79.3**	50.0	50.0	29.9	**96**	**99**	75-125	2	20	
Chromium	**2400**	**2790**	100	100	2780	**-376**	**7**	75-125	15	20	A
Copper	**1310**	**1450**	50.0	50.0	1140	**334**	**617**	75-125	10	20	A
Lead	**1570**	**1630**	250	250	1550	**9**	**30**	75-125	3	20	A
Nickel	**2180**	**2330**	100	100	2130	**54**	**205**	75-125	7	20	A
Selenium	**92.7**	**91.0**	100	100	ND	**93**	**91**	75-125	2	20	
Silver	**33.0**	**34.5**	25.0	25.0	11.2	**87**	**93**	75-125	4	20	
Zinc	**2410**	**2040**	100	100	2130	**283**	**-86**	75-125	17	20	A
Laboratory ID:	06-002-01										
Mercury	**0.597**	**0.588**	0.500	0.500	0.110	**97**	**96**	80-120	2	20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-2**					
Laboratory ID:	06-002-01					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.62**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-8**					
Laboratory ID:	06-002-02					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.72**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.021**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.26**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-4**					
Laboratory ID:	06-002-03					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.30**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.076**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-22**					
Laboratory ID:	06-002-04					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.46**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.58**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-12**					
Laboratory ID:	06-002-05					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.54**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-19**					
Laboratory ID:	06-002-06					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**1.0**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.021**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.059**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-15**					
Laboratory ID:	06-002-07					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**1.8**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.25**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-7**					
Laboratory ID:	06-002-08					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.56**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-21**					
Laboratory ID:	06-002-09					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**1.0**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.057**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-11**					
Laboratory ID:	06-002-10					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.56**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.050**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-9**					
Laboratory ID:	06-002-11					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.64**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.053**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-14**					
Laboratory ID:	06-002-12					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.88**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.039**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-5**					
Laboratory ID:	06-002-13					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.46**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.046**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.22**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-3**					
Laboratory ID:	06-002-14					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.55**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.028**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-1**					
Laboratory ID:	06-002-15					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.51**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.12**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.10**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**2.8**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-10**					
Laboratory ID:	06-002-16					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.37**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.029**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.12**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-13**					
Laboratory ID:	06-002-17					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.76**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.13**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-18**					
Laboratory ID:	06-002-18					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.38**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.020**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-20**					
Laboratory ID:	06-002-19					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.64**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.040**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.024**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-6**					
Laboratory ID:	06-002-20					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**0.68**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**0.023**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**0.076**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Client ID:	**AW-16**					
Laboratory ID:	06-002-21					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.49**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**0.038**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**AW-17**					
Laboratory ID:	06-002-22					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**0.54**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0602TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Barium	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Cadmium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Chromium	**ND**	0.020	EPA 6010D	6-2-20	6-2-20	
Lead	**ND**	0.20	EPA 6010D	6-2-20	6-2-20	
Selenium	**ND**	0.40	EPA 6010D	6-2-20	6-2-20	
Silver	**ND**	0.040	EPA 6010D	6-2-20	6-2-20	
Laboratory ID:	MB0602T1					
Mercury	**ND**	0.0050	EPA 7470A	6-2-20	6-2-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603TM1					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Laboratory ID:	MB0603T1					
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Laboratory ID:	MB0603TM2					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Laboratory ID:	MB0603T2					
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	
Laboratory ID:	MB0603TM3					
Arsenic	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Barium	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Cadmium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Chromium	**ND**	0.020	EPA 6010D	6-3-20	6-3-20	
Lead	**ND**	0.20	EPA 6010D	6-3-20	6-3-20	
Selenium	**ND**	0.40	EPA 6010D	6-3-20	6-3-20	
Silver	**ND**	0.040	EPA 6010D	6-3-20	6-3-20	
Laboratory ID:	MB0603T3					
Mercury	**ND**	0.0050	EPA 7470A	6-3-20	6-3-20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-208-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**0.684**	**0.654**	NA	NA		NA	NA	4	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	05-208-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	06-002-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.616**	**0.624**	NA	NA		NA	NA	1	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	06-002-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-208-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.79**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	0	20	
Barium	**3.69**	**3.67**	4.00	4.00	ND	**92**	**92**	75-125	1	20	
Cadmium	**1.96**	**1.95**	2.00	2.00	ND	**98**	**98**	75-125	1	20	
Chromium	**4.21**	**4.21**	4.00	4.00	0.684	**88**	**88**	75-125	0	20	
Lead	**8.54**	**8.50**	10.0	10.0	ND	**85**	**85**	75-125	0	20	
Selenium	**3.88**	**3.91**	4.00	4.00	ND	**97**	**98**	75-125	1	20	
Silver	**0.904**	**0.908**	1.00	1.00	ND	**90**	**91**	75-125	0	20	
Laboratory ID:	05-208-01										
Mercury	**0.0490**	**0.0497**	0.0500	0.0500	ND	**98**	**99**	75-125	1	20	
Laboratory ID:	06-002-01										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**3.95**	**3.90**	4.00	4.00	ND	**99**	**98**	75-125	1	20	
Barium	**4.24**	**4.29**	4.00	4.00	0.616	**91**	**92**	75-125	1	20	
Cadmium	**1.96**	**1.96**	2.00	2.00	ND	**98**	**98**	75-125	0	20	
Chromium	**3.50**	**3.52**	4.00	4.00	ND	**88**	**88**	75-125	1	20	
Lead	**8.14**	**8.22**	10.0	10.0	ND	**81**	**82**	75-125	1	20	
Selenium	**4.15**	**4.35**	4.00	4.00	ND	**104**	**109**	75-125	5	20	
Silver	**0.908**	**0.918**	1.00	1.00	ND	**91**	**92**	75-125	1	20	
Laboratory ID:	06-002-01										
Mercury	**0.0476**	**0.0477**	0.0500	0.0500	ND	**95**	**95**	75-125	0	20	

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Date of Report: June 4, 2020
Samples Submitted: June 1, 2020
Laboratory Reference: 2006-002
Project: Star Forge

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
AW-2	06-002-01	**1**	6-2-20
AW-8	06-002-02	**21**	6-2-20
AW-4	06-002-03	**3**	6-2-20
AW-22	06-002-04	**1**	6-2-20
AW-12	06-002-05	**8**	6-2-20
AW-19	06-002-06	**20**	6-2-20
AW-15	06-002-07	**35**	6-2-20
AW-7	06-002-08	**6**	6-2-20
AW-21	06-002-09	**6**	6-2-20
AW-11	06-002-10	**7**	6-2-20
AW-9	06-002-11	**3**	6-2-20
AW-14	06-002-12	**15**	6-2-20
AW-5	06-002-13	**0**	6-2-20
AW-3	06-002-14	**3**	6-2-20
AW-1	06-002-15	**17**	6-2-20
AW-10	06-002-16	**1**	6-2-20
AW-13	06-002-17	**0**	6-2-20
AW-18	06-002-18	**3**	6-2-20
AW-20	06-002-19	**1**	6-2-20
AW-6	06-002-20	**2**	6-2-20
AW-16	06-002-21	**1**	6-2-20
AW-17	06-002-22	**15**	6-2-20

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

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Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: Star Forge
Project Manager: Dave Hill
Sampled by: N. Moxley / B. Johnson

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-002

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A						% Moisture
1	AW-2	6/1/20	0655	Solids	5					X					X				X		X							X
2	AW-8		0705																								
3	AW-4		0715																								
4	AW-22		0725																								
5	AW-12		0735											X													
6	AW-19		0750																								
7	AW-15		0755																								
8	AW-7		0805																								
9	AW-21		0815																								
10	AW-11		0820																								

	Signature	Company	Date	Time
Relinquished		DH Env.	6-1-20	11:10
Received			6/1/20	1140
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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☐ Same Day ☐ 1 Day
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☐ _____ (other)

Laboratory Number: 06-002

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11	AW-9	6/1/20	0830	Solids	5					X					X				X		X							16
12	AW-14		0840																									
13	AW-5		0850																									
14	AW-3		0900																									
15	AW-1		0910																									
16	AW-10		0920																									
17	AW-13		0930																									
18	AW-18		0940																									
19	AW-20		0950																									
20	AW-6		1005											X														

	Signature	Company	Date	Time
Relinquished		DH Env.	6-1-20	11:10
Received			6/1/20	1110
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

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Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 06-002

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals + Cu, Ni, Zn	Total MTCA Metals	TCLP Metals RCRA 8	HEM (oil and grease) 1664A					% Moisture
21	AW-16	6/1/20	1020	Solids	5					X					X				X		X						10
22	AW-17	↓	0640	↓	↓					X					X				X		X						↓

	Signature	Company	Date	Time
Relinquished		OH Env.	6-1-20	11:10
Received		OHE	6/1/20	1140
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐