Pilot-Scale Treatability Study Implementation Report

TACOMA METALS SITE
GENERAL METALS REMEDY PERFORMANCE AREA
TACOMA, WASHINGTON

Cleanup Site ID: 43910

December 29, 2022 - **FINAL**

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GENERAL METALS OF TACOMA

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1.0 Introduction

On behalf of General Metals of Tacoma (GMT), Dalton, Olmsted, and Fuglevand, Inc. (DOF) prepared this Pilot-Scale Treatability Study Implementation Report (Implementation Report) for the General Metals Remedy Performance Area (GMRPA) located within the On-Property area of the Tacoma Metals Site (the Site) (Figure 1). Pilot-Scale testing was completed to assist in preparing a revised Feasibility Study (FS) as part of meeting the requirements of Agreed Order (AO) Number DE17989 (dated May 27, 2020) between the Washington State Department of Ecology (Ecology), International Paper (IP), and GMT.

The Site is generally located northeast of the intersection of Portland Avenue and St. Paul Avenue in Tacoma, Washington (Figure 1). The Site consists of two general areas which include: 1) the *"Off-Property Area"* which includes three parcels (JJ Port Property, IP Property, and City of Tacoma Right of Way [E 18th St Right of Way]) located on the northwest end of the Site, and 2) the *"On-Property Area."* As illustrated on Figure 1, the On-Property area encompasses a larger portion of the overall Site.

The AO identifies IP and GMT as potentially liable parties (PLPs) at the Site. Based on a settlement agreement finalized on December 1, 2020[1] between GMT and IP, IP is responsible for cleanup of soil and groundwater within the Off-Property Area and within the On-Property Area where a creosote treatment plant operated (IP Remedy Performance Area on Figure 2) and elsewhere where creosote impacts are present and require cleanup. GMT is responsible for cleanup of shallow soil and groundwater within the On-Property Area impacted by historical recycling operations, except in the area of the former creosote treatment plant.

A pilot-scale treatability study (Pilot Study) was completed in April/May 2022 in accordance with the *Additional Site Characterization and Pilot Scale Testing Plan* (Work Plan) prepared by DOF, dated October 20, 2021 and revised December 17, 2021 (DOF, 2021) based on comments received from Ecology. Work discussed in this Implementation Report pertains to just the GMRPA of the On-Property Area at the Site. A draft of this report was submitted to Ecology on November 8, 2022. Ecology confirmed that they had no comments on the report in an e-mail to Matt Dalton (DOF) from Andrew Smith (Ecology) on December 29, 2022.

1.1 Site Description

The GMRPA of the On-Property Area is relatively flat and comprises approximately 5.5 acres. A chain-link fence with several entrance gates surrounds the Site. The Puyallup River is situated to the northeast and the Site is separated from the Puyallup River (and Puyallup River South Side Channel) by an embankment dike. Approximately two-thirds of the On-Property Area of the Site is paved with asphalt and one-third remains unpaved. A number of foundation elements/buried structures are present throughout the Site including those associated with a former coke plant, warehouse associated with former metal recycling operations, and a former creosote plant. While the paved portion of the On-Property Area is underlain by a storm drainage system, stormwater currently infiltrates into Site soils given that the catch basins are sealed.

[1] IP (the final signature) signed the agreement on December 1, 2020.

Shallow "soils" at the Site are predominately comprised of silty sands overlain with wood debris from a historic lumber mill that are overlain by imported fill soils. Metal, brick, and glass debris are present in the upper portions of the imported fill soils. Contaminants of concern at the Site include metals (primarily lead), petroleum hydrocarbons, and polychlorinated biphenyls (PCBs). Some of the metals-containing soils designate as a characteristic dangerous waste (DW) based on analytical testing using the Toxicity Characteristic Leaching Procedure (TCLP), per Chapter 173-303 of the Washington Administrative Code.

1.2 Objective

The objective of the Pilot Study was to confirm the efficacy of an on-site, in-situ, treatment method to remove the DW designation of Site soils exhibiting leachable levels of lead (using the TCLP) exceeding the land disposal requirements (LDR) of greater than 5 milligrams per liter (mg/L). Reducing the leachability to below the LDRs significantly reduces off-site disposal costs for soil requiring cleanup. If effective, treated soil could be disposed at a Resource Conservation and Recovery Act Subtitle D (municipal waste) landfill as opposed to a Subtitle C (hazardous waste) landfill.

1.3 Background

As part of the Pilot Study, soil samples were submitted for bench-scale testing to The TDJ Group (Barrington, IL) using their "Blastox®" product. The bench-scale testing indicated a 3% to 4% addition of Blastox to Site soils would reduce leachability of lead, effectively removing the DW designation. Additional details regarding the bench-scale testing are provided in the *Work Plan* (DOF, 2021).

2.0 Methodology

The GMRPA of the Site was divided into grid areas to assist in developing a remedial approach (Figure 2). Grid Areas UP-11 and UP-22 were selected as the two areas for implementation of the Pilot Study. Each of these areas exhibited elevated concentrations of lead between 2,790 and 9,380 milligrams per kilogram (mg/kg) with UP-11 soil concentrations exceeding cleanup levels (CULs[2]) to a depth of 3 to 4-feet below ground surface (bgs) and UP-22 soil concentrations exceeding CULs to a depth of 2-feet bgs.

The Pilot Test procedure is described in the *Work Plan* (DOF, 2021) and included the following:

- Stake the corners of each proposed treatment area using handheld global positioning system (GPS).
- Construct a lined stockpile area on adjacent paving to accommodate up to six 100 cubic yard (CY) stockpiles.
- Collect a 3-spot discrete location composite soil sample from each of the 1-foot depth intervals

[2] Preliminary (draft) lead CULs are presented in the revised draft "*Remedial Investigation and Feasibility Study, Tacoma Metals , Inc. Site*," dated June 22, 2018 prepared by Aspect Consulting. This document provided the primary basis for settlement among the PLPs. In unpaved areas, lead has a draft CUL of 118 mg/kg in shallow soils for protection of wildlife and 1,601 mg/kg in deep soils for protection of groundwater. In paved areas, lead has a draft CUL of 1,601 mg/kg and the draft remediation level is 2,000 mg/kg, twice the Ecology MTCA Method A cleanup level of 1,000 mg/kg.

for analysis of lead (in the laboratory and using a field X-ray fluorescence [XRF] analyzer) and for sheen testing. The three discrete locations were to be evenly distributed within the target area. All samples to be submitted for laboratory analysis were to be mixed in a stainless-steel bowl using a stainless-steel spoon. This sample would provide characterization of the pre-treated soils.

- Place a 4% by weight amount of Blastox evenly across the soil surface to be treated and mix the material using an excavator until the material is deemed homogenous by the Engineer.
- Excavate the treated soil and place in the lined stockpile area at the Site. Stockpiles were covered at the end of each day.
- Collect a minimum of a 3 spot-location composite sample from each stockpile using the methods discussed above for the pre-treated soil sample.
- Samples were submitted to the analytical laboratory for total/TCLP testing for Resource Conservation and Recovery Act (RCRA) 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).
- Backfill the excavations with clean imported material. Field compact the backfill.
- Based on results of the laboratory testing, determine treated soil disposal options, gain disposal facility and Ecology approval, transport treated soils to the approved facility, and demobilize from the Site.

3.0 Implementation

This section provides the timeline and discussion of the Pilot Study field implementation.

3.1 Permitting

Because soil volumes were estimated to be greater than 500 CY, a site development permit was required from the City of Tacoma (the City). Plans and specifications were submitted to the City Planning and Development Services Department on December 27, 2021 and the permit was received on January 20, 2022.

3.2 Site Preparation

Mobilization to and preparation of the Site commenced the week of April 25, 2022. During the week, the contractor, Clearcreek Contractors (Clearcreek), mobilized equipment and supplies to perform the work, prepared and installed temporary erosion and sediment control measures per the City Permit, and prepared the work area around the two pilot test stabilization areas (UP-11 and UP-22), including where excavated treated soil would be stockpiled while the material was profiled prior to shipment off-site.

3.3 UP-22 Stabilization and Excavation

On April 29, 2022, stabilization using Blastox in excavation area UP-22 commenced. Stabilization was performed by placing the TDJ Group, Inc. product Blastox on the soil surface and mixing it in 1-foot lifts at an augmentation rate of 4% by weight (assumed soil mass conversion of 1.6 tons per cubic yard). For excavation area UP-22, this equated to 12,000 pounds of Blastox per 1-foot lift. During placement of the

Blastox, a pressure washer was used to mist the supersack of Blastox to minimize the creation of fugitive dust. In addition, the funnel at the base of the supersack was kept within 1 to 2 feet from the soil surface to limit dust generation. Following placement of the Blastox, a toothed bucket was installed on the excavator for mixing and the operator used the teeth to smear the Blastox into the soil. This process continued through the entire excavation area until the Blastox was mixed with the soil. After mixing, a smooth blade bucket was attached to the excavator and the 1-foot lift of stabilized soil was removed. The excavated soil was placed in a dump truck on-site for transport to and placement in the stockpile area. The process of excavation and placement in the stockpile area provided additional mixing of the Site soils with the Blastox. By the end of the day on April 29, 2022, Clearcreek had removed and stockpiled the 0 to 1-foot lift from UP-22 and performed in-situ mixing of the next (1 to 2-foot interval) lift.

Clearcreek returned to the Site on May 2, 2022 to finish excavation and stockpiling of UP-22. During excavation of the 1 to 2-foot lift, DOF staff used a field XRF instrument to assess lead concentrations at the final bottom of the excavation. Lead concentrations were considered acceptable when concentrations were less than 200 parts per million (ppm) when measured by the XRF instrument. The 200 ppm limit was empirically derived from past Site work and generally confirms the lower extent of the observable metal debris and soils containing elevated lead concentrations. If lead concentrations were measured in excess of 200 ppm, treatment/excavation continued until this benchmark concentration was reached. While performing final excavation in UP-22, excavation depth increased in the southern portion with a maximum total depth of 4-feet in a limited area of the excavation along the southern sidewall. In this area of deeper excavation, creosoted timbers and petroleum staining were present at the bottom of excavation (Figure 3), but lead concentrations were below the 200 ppm limit.

In general, when metal debris was present in the excavated soils, lead was present at concentrations above the 200 ppm limit. Once metal debris was no longer present in the excavated soil surface, lead concentrations were below the 200 ppm limit, and excavation was determined to be complete.

3.4 UP-11 Stabilization and Excavation

On May 2, 2022, Clearcreek performed stabilization of the 0 to 1-foot lift in UP-11. Blastox placement and mixing was performed in a similar manner as UP-22 using the same augmentation rate of 4% by weight. For excavation area UP-11, this equated to 13,500 pounds of Blastox per 1-foot lift because the excavation footprint was slightly larger than at UP-22. The treated soil was left in-situ at the end of the day.

Excavation of the 0 to 1-foot lift was performed on May 3, 2022. During excavation of the lift, foundation elements were encountered in the southern half of the excavation area, with a larger foundation footing wall running east-west and a smaller foundation element running north-south between the haul road (southern extent of excavation) and the large former coke plant foundation element. Because of a missed delivery of Blastox, no additional mixing of subsequent lifts was performed following excavation of the 0 to 1 foot lift.

On May 4, 2022, Clearcreek mobilized a breaker to the Site to remove the foundation. The portion of the foundation oriented north-south consisted of a smaller concrete beam spanning between the haul road

(asphalt) and the larger foundation with a single footing in the middle of the span. Upon further investigation, once the footing was removed, the footing was determined to be a pile cap with a single creosoted pile below. The pile was severely deteriorated with the center rotted out. After removing the smaller foundation element, Clearcreek attempted to remove the large foundation element but was unable due to its size and the equipment available. DOF and Clearcreek agreed the best path forward was to leave the foundation element in-place and resume soil mixing, working around the foundation. Concrete removed from the excavation area was placed adjacent to the excavation for handling during full-scale remediation. Clearcreek stabilized and excavated the 1 to 2-foot and 2 to 3-foot soil intervals in excavation UP-11 by the end of the day. The soil surface at the excavation depth of 3-feet was a uniform gravelly sand without signs of lead contamination (below the 200 ppm limit), except in the northern 12 feet of the excavation area, where metal debris was present and the uniform gravelly sand was no longer observed.

On May 5, 2022, the northern area of UP-11 was treated and excavated. At the base of the excavation, a brown, poorly graded, fine sand, characteristic of natural deposits from the Puyallup River were encountered. As was performed in UP-22, DOF staff used an XRF instrument to measure lead concentrations at the base of the excavation area and all measurements were below the 200 ppm limit.

3.5 UP-12 Stabilization

An additional two supersacks (6,000 pounds) of Blastox material remained following completion of UP-11 because enough material was ordered to perform stabilization to a 4-foot depth in UP-11. This material was mixed in-situ in future excavation area UP-12. The material was spread over a 39-foot (east-west) by 23-foot (north-south) area at the north end of area UP-22 (Figure 2). The material was left in place for excavation during future full-scale remediation of the Site. The Blastox augmentation rate was 4% by weight, equivalent to the other stabilization performed as part of the Pilot Study field implementation.

3.6 Soil Sampling and Analytical Discussion

The following sections discuss soil sample collection as required under the Work Plan and a discussion of the analytical results. Analytical data packages are provided as Appendix A.

3.6.1 Pre-Stabilization/Excavation Sampling

Prior to placement of Blastox, three discrete soil samples were collected (from each lift) and composited in a stainless-steel bowl and homogenized using stainless steel spoons to provide pre-stabilization total lead concentrations. Sample locations were evenly spaced throughout the excavation area and collected to be representative of the soil types encountered. Samples collected from each discrete location were collected through the entire 1-foot interval to be stabilized and submitted to the analytical laboratory for analysis of total lead by Environmental Protection Agency (EPA) Method 6020B. Results of these samples are provided in Table 1 and are denoted by “PRE” in the sample ID. Total lead concentrations were between 1,010 mg/kg and 3,580 mg/kg.

3.6.2 Stockpile Sampling

Stockpile samples were collected following excavation of each treated lift in excavations UP-11 and UP-22, prior to Clearcreek covering the stockpiles. Material from each lift was stockpiled separately in six stockpiles at the Site. Samples were collected from ten discrete locations from each stockpile and composited to form six composited samples representative of each stockpile. The stockpile composited samples were submitted to the laboratory for analysis of total and TCLP RCRA 8 metals by EPA Method 1311 and 6020B, respectively. All six stockpile samples were non-detect for TCLP RCRA 8 metals and total lead concentrations were between 853 mg/kg and 2,840 mg/kg. Analytical data for the stockpile samples are summarized in Table 1 and are denoted by "STP" in the sample ID.

3.6.3 PCB Excavation Extent Sampling

Prior to completion of the Pilot Study, additional site characterization was conducted in accordance with the Work Plan by collecting and analyzing soil samples from test pits[3] at the Site. Testing included PCB analysis for supplemental characterization purposes and to inform appropriate disposal options for treated stockpiled soil[4]. Soil with PCB concentrations less than 50 ppm would be disposed in a RCRA Subtitle D (municipal landfill) whereas soil containing PCB concentrations equal to or greater than 50 ppm requires disposal at a RCRA Subtitle C (hazardous waste) landfill. In addition, after the UP-22 and UP-11 excavations were completed, bottom samples were collected for PCB analysis. The results of these analyses are discussed below.

UP-22 Excavation Area

In March 2022, two samples were obtained from grid UP-22 and analyzed for PCBs (DOF, 2022). The samples were collected from depths of 0 to 1 foot and 2 to 2.5 feet. The upper sample contained metal debris/glass and the lower sample did not. PCB concentrations were detected at 12 mg/kg (0 to 1-foot bgs) and 0.03 mg/kg (2 to 2.5-feet bgs).

Once excavation in UP-22 was complete, three discrete samples were collected on May 2, 2022, from the bottom of the excavation for PCB analysis (Figure 3). The bottom of the excavation was divided into grid squares and sample locations were randomly selected. Samples were collected from grid 9, 16 and 22. Grid 9 was located near the northeast corner of the excavation, grid 16 was located near the center of the excavation, and grid 22 was located near the southwest corner of the excavation (Figure 3).

- Sample UP-22_9Z_2 collected from grid 9 was collected at an approximate depth of 2 feet bgs and was non-detect for PCBs.
- Sample UP-22_16Z_3 collected from grid 16 was collected at an approximate depth of 3 feet bgs and only Aroclor 1260 was detected at a concentration of 9.9 mg/kg. All other Aroclors were non-detect.

[3] The results of the additional characterization sampling will be documented in a separate data report.
[4] Federal regulations (40 CFR 761) require that PCB profiling for disposal purposes be completed in-situ (i.e. not in stockpiles).

- Sample UP-22_22Z_3 collected from cell 22 was collected at an approximate depth of 3 feet bgs and only Aroclor 1254 was detected at a concentration of 0.17 mg/kg. All other Aroclors were non-detect.

Bottom sample PCB analytical data are summarized in Table 2 and sample locations are shown in Figure 3 for excavation area UP-22.

UP-11 Excavation Area

In February 2022, three samples were obtained from grid UP-11 and analyzed for PCBs (DOF, 2022). The samples were collected from depths of 0 to 1.5 feet, 1.5-1.8 feet, and 1.8 to 3.0 feet bgs. The upper two samples contained metal debris/plastic/glass while the lower sample did not. PCB concentrations were detected at 2.6 mg/kg (0 to 1.5-foot bgs), 116 mg/kg (1.5 to 1.8 feet bgs), and 0.70 mg/kg (1.8 to 3.0 feet bgs).

Once excavation in UP-11 was complete, three discrete samples were collected on May 5, 2022 from the bottom of the excavation for PCB analysis (Figure 4). The bottom of the excavation was divided into grid squares and sample locations were randomly selected. Samples were collected from grid 7, 13 and 23. Grid 7 was located near the northeast corner of the excavation, grid 13 was located near the center of the excavation adjacent to the western sidewall, and grid 23 was located near the southeast corner of the excavation (Figure 4).

- Sample UP-11_7Z_3 collected from grid 7 was collected at an approximate depth of 3 feet bgs and Aroclor 1254 and Aroclor 1260 were detected at concentrations of 0.031 and 0.043 mg/kg, respectively (total PCB = 0.074 mg/kg). All other Aroclors were non-detect.
- Sample UP-11_13Z_3 collected from grid 13 was collected at an approximate depth of 3- feet bgs and was non-detect for PCBs.
- Sample UP-11_23Z_3 collected from grid 23 was collected at an approximate depth of 3 feet bgs and only Aroclor 1260 was detected at a concentration of 0.33 mg/kg. All other Aroclors were non-detect.

Analytical data are summarized in Table 2 and sample locations are shown in Figure 4 for excavation area UP-11.

3.7 Backfill and Compaction

Backfilling of both excavations was performed between May 5 and 10, 2022. Associated Earth Sciences, Inc (AESI) provided backfill compaction testing. Excavation area UP-22 met compaction requirements of 95% of the ASTM D1557 maximum density for the entire excavation area. For excavation area UP-11, AESI confirmed compaction requirements for lifts placed deeper than 2 feet bgs north of the foundation wall. Because of contractor equipment vandalism which occurred sometime between May 6 and 10, 2022, the backfill placed between the haul road and the foundation wall was compacted by excavator bucket tamping. The area north of the foundation wall had backfill placed around the edges of the excavation to protect sidewalls and improve Site safety. A decision was made to not completely backfill UP-11 and demobilize equipment from the site on May 10, 2022 to prevent any further vandalism to Clearcreek's equipment. A shallow depression remains in UP-11 that will need to be backfilled during the future full-scale remediation of the Site. Geotechnical compaction reports are provided in Appendix B.

3.8 Waste Disposal

Profiling of remediation wastes was performed following completion of the Pilot Study field work and receipt of analytical data. All six stockpiles were non-detect for TCLP lead following in-situ treatment.

Because of the presence of PCBs at concentrations greater than 50 ppm, a PCB self-implementing cleanup notification was required in accordance with 40 CFR § 761.61(a). The PCB self-implementing cleanup notification (DOF, 2022) was submitted to EPA on June 16, 2022 and was accepted by EPA on July 21, 2022 (Appendix C). Following acceptance of the EPA notice, an EPA Notification of PCB Activity was submitted to EPA on July 29, 2022.

Once EPA notification of PCB activity were completed, DOF submitted profiles for both non-hazardous and hazardous soils to Waste Management in Arlington, OR. The hazardous waste profile (portion of grid UP-11 with PCB concentrations equal to or greater than 50 ppm) was approved on August 26, 2022 for disposal at Waste Management's Subtitle C landfill in Arlington, Oregon operated by Chemical Waste Management of the Northwest. The non-hazardous waste profile (soil with PCB concentrations less than 50 ppm) was approved on August 31, 2022 for disposal at Waste Management's Subtitle D landfill in Arlington, Oregon.

3.8.1 Non-Hazardous Soil Disposal

Non-hazardous soils were loaded out between September 12 and 13, 2022 by Clearcreek. Transportation of non-hazardous soils was self-performed by Clearcreek including subcontracted trucks from Silver Streak, a Seattle area trucking company. Soils were hauled from the Site to the Waste Management Alaska Street Transfer Station under non-hazardous profile 138534OR. The soils were transferred into rail cars for final transport to and disposal at the Waste Management Subtitle D landfill in Arlington, Oregon. A total of 486.26 tons of soil were disposed. Copies of the waste disposal scale tickets are provided in Appendix D.

3.8.2 Hazardous Soil Disposal

PCB-containing soil was loaded out between September 12 and 14, 2022, by Clearcreek. R Transport, a licensed hazardous waste transporter, was subcontracted by Clearcreek to haul the soil to the Chemical Waste Management of the Northwest Subtitle C landfill in Arlington, Oregon. The soil was hauled directly to the landfill and disposed under hazardous waste profile OR351438. A total of 337.12 tons of soils were disposed. Copies of the certificates of disposal are provided in Appendix E.

4.0 Conclusions

The Pilot Study performed at the Tacoma Metals Site in April/May 2022 confirmed the bench-scale testing approach and supports the field in-situ implementability of the stabilization of lead concentrations in untreated soil exceeding the DW TCLP threshold of 5 mg/L at a 4% augmentation rate of Blastox. All TCLP lead concentrations were non-detect in post-treatment stockpile samples collected as part of the Pilot Study.

Because of the presence of PCBs in soil excavated at the Site during the Pilot Study, coordination with EPA will be necessary to allow for continuous shipment of soils during future full-scale remediation activities. Shipments of both non-hazardous and hazardous PCB-containing soils are anticipated as part of the future full-scale remediation activities at the Site. For PCB-containing soils, a risk-based disposal approval will need to be obtained in accordance with 40 CFR § 761.61(c). The supplemental characterization data and revised *Remedial Investigation and Feasibility Study* (RI/FS) for the Site

(currently being prepared) will identify the extent of PCB-containing soils across the Site to be used as part of design and permitting of the Site's final remedy in accordance with the AO.

5.0 References

DOF, 2021. Additional Site Characterization and Pilot Scale Testing Plan, Tacoma Metals, Inc. Site, Tacoma, Washington. December 7.

DOF, 2022. Self-Implementing Cleanup Notification, Tacoma Metals Site, Tacoma, Washington. June 17.

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Tables

TABLE 1

Summary of Total and TCLP Metals Analytical Results [1,2]

Tacoma Metals Site

Tacoma, Washington

	Backfill	UP-22				UP-11							
Sample Location		**In-Situ**	**Stockpile**	**In-Situ**	**Stockpile**	**In-Situ**	**Stockpile**	**In-Situ**	**Stockpile**	**In-Situ**	**Stockpile**	**In-Situ**	**Stockpile**
Sample ID	**Holt-Fill**	**UP-22_PRE_0-1**	**UP-22_STP_0-1**	**UP-22_PRE_1-2**	**UP-22_STP_1-2**	**UP-11_PRE_0-1**	**UP-11_STP_0-1**	**UP-11_PRE_1-2**	**UP-11_STP_1-2**	**UP-11_PRE_2-3**	**UP-11_STP_2-3**	**UP-11_PRE_3-4**	**UP-11_STP_3-4**
Date	**4/26/2022**	**4/29/2022**	**4/29/2022**	**4/29/2022**	**5/2/2022**	**5/2/2022**	**5/3/2022**	**5/3/2022**	**5/4/2022**	**5/4/2022**	**5/4/2022**	**5/4/2022**	**5/5/2022**
Depth Interval (ft)	**NA**	**0-1**	**0-1**	**1-2**	**1-2**	**0-1**	**0-1**	**1-2**	**1-2**	**2-3**	**2-3**	**3-4**	**3-4**
FBI Report No.	204432	205016	205016	205016	205016	205016	205059	205059	205059	205059	205090	205090	205090
XRF Field Measurement (ppm)													
Lead [3]	NA	3174	1338	700	419	1980	2823	3520	1418	1828	434	2725	842
Total Metals by EPA Method 6020B (mg/kg)													
Arsenic	1.98	--	16.3	--	12.9	--	47.6	--	14.6	--	5.37	--	9.21
Barium	45.6	--	243	--	355	--	361	--	234	--	112	--	135
Cadmium	< 1	--	13.0	--	18.4	--	55.1	--	26.3	--	10.6	--	13.9
Chromium	12.0	--	86.2	--	162	--	279	--	220	--	75	--	115
Lead	1.80	3,090	954	1,010	853	3,580	2,840	3,050	1,660	2,220	724	3,460	919
Mercury	< 1	--	< 2	--	< 2	--	14.1	--	9.86	--	4.78	--	31.8
Selenium	< 1	--	< 1	--	< 1	--	3.98	--	< 5	--	1.51	--	1.78
Silver	< 1	--	< 2	--	< 1	--	11.3	--	11.9	--	4.38	--	8.69
TCLP Metals by EPA Method 6020B and 1311 (mg/L)													
Arsenic	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Barium	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Cadmium	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Chromium	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Lead	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Mercury	--	--	< 0.1	--	< 0.1	--	< 0.1	--	< 0.1	--	< 0.1	--	< 0.1
Selenium	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1
Silver	--	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1	--	< 1

Abbreviations

-- indicated not analyzed

NA = not applicable

TCLP = Toxicity Characteristic Leaching Procedure

XRF = X-Ray Fluorescence Analyzer

< = not-detected at indicated reporting limits

FBI = Friedman & Bruya, Inc.

Notes

1. Sample names including PRE indicate collection of a 3-point composite sample from the full depth of the interval before the Blastox amendment.
2. Sample names including STP indicate collection of a 10-point composite sample from the stockpiled material following mixing, excavation, and stockpiling.
3. XRF lead concentratrion is the average of 3 measurements from the composite sample.

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TABLE 2

Summary of Confirmational PCB Analytical Results [1]

Tacoma Metals Site

Tacoma, Washington

	UP-11			UP-22		
Sample ID	**UP-11_7Z_3**	**UP-11_13Z_3**	**UP-11_23Z_3**	**UP-22_9Z_2**	**UP-22_16Z_3**	**UP-22_22Z_3**
PCB Sampling Cell	**7**	**13**	**23**	**9**	**16**	**22**
Date	**5/5/2022**	**5/5/2022**	**5/5/2022**	**5/2/2022**	**5/2/2022**	**5/2/2022**
Depth (ft)	**3**	**3**	**3**	**2**	**3**	**3**
FBI Report No.	205089	205089	205089	205017	205017	205017
PCBs by EPA Method 8082A (mg/kg)						
Aroclor 1221	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1232	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1016	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1242	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1248	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1254	**0.031**	< 0.02	< 0.02	< 0.02	< 0.02	**0.17**
Aroclor 1260	**0.043**	< 0.02	**0.33**	< 0.02	**9.9**	< 0.02
Aroclor 1262	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Aroclor 1268	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Total PCBs	0.074	< 0.02	0.33	< 0.02	9.9	0.17

Abbreviations

< indicated the compound was not detected above the stated laboratory reporting limit.

BOLD indicates a detected compound

FBI = Friedman & Bruya, Inc.

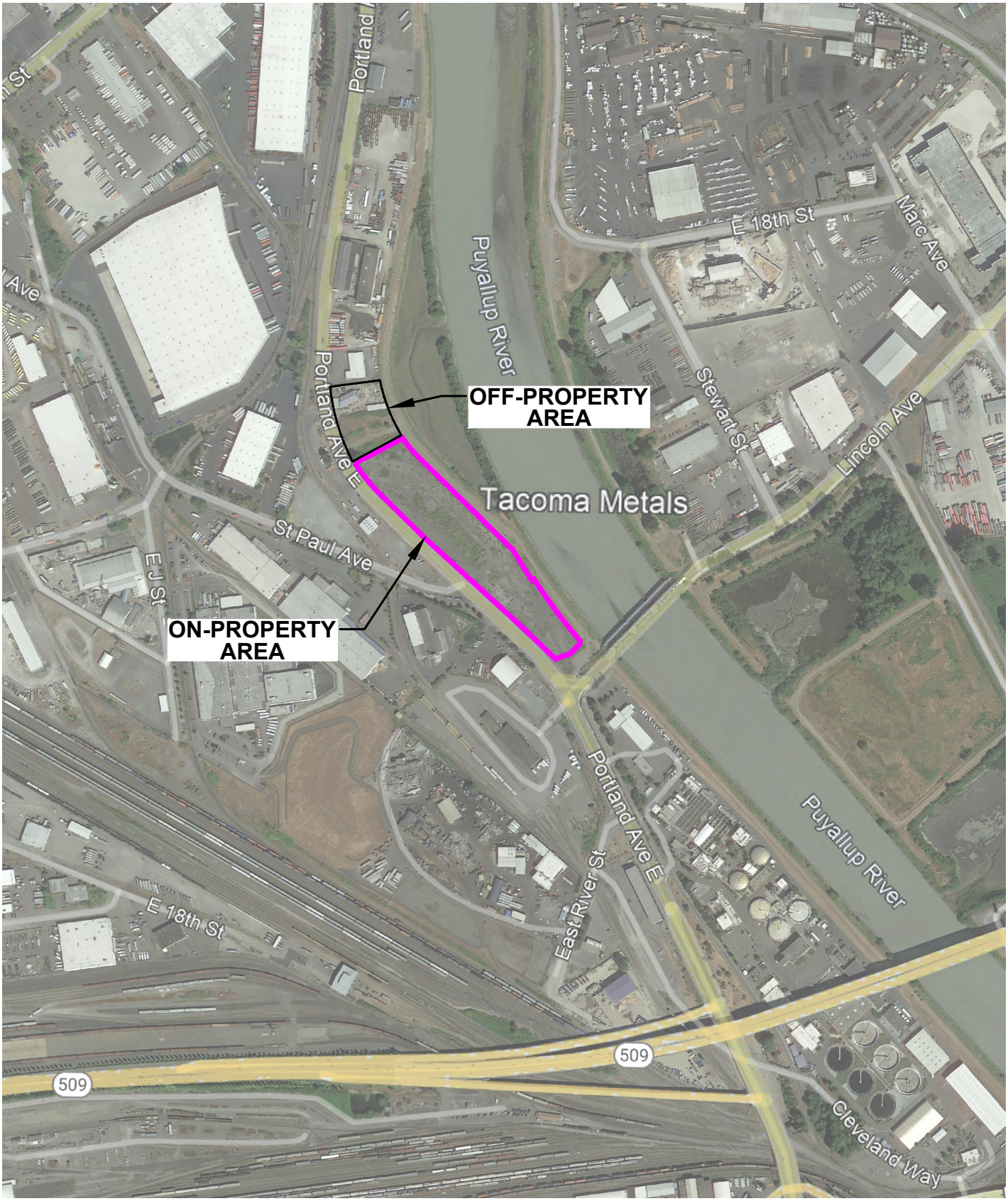
Notes

1. Sample were collected from the bottom of the excavation in the noted PCB sampling cell.

DOF DALTON OLMSTED FUGLEVAND

DOF DALTON OLMSTED FUGLEVAND

Figures



Aerial Source: Google Earth Pro, 08/14/2020.

N

0 600

Scale in Feet

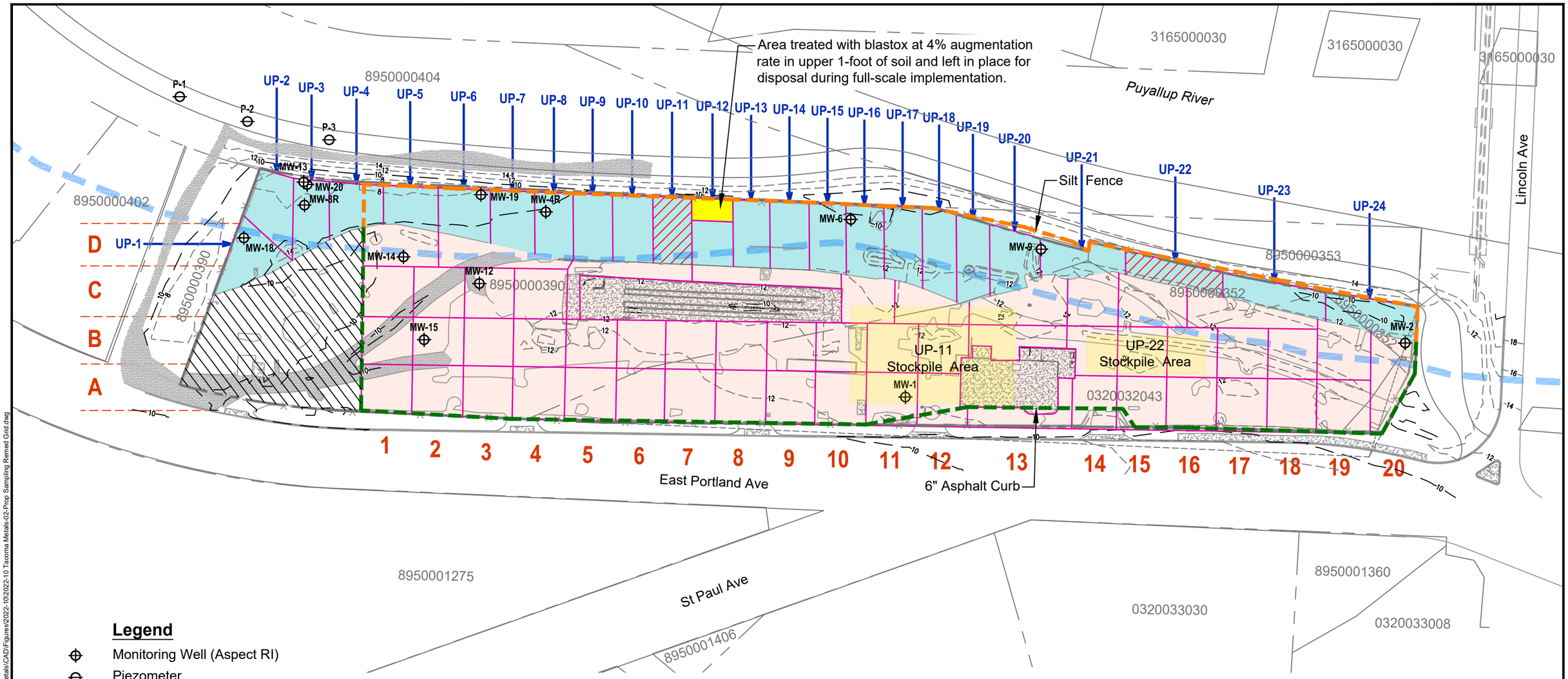
Tacoma Metals Site
Tacoma, Washington

Project Location

DALTON OLMSTED FUGLEVAND

FIGURE 1

11/03/2022



Legend

- Monitoring Well (Aspect RI)
- Piezometer
- Site Boundary
- Silt Fence
- 6-inch Asphalt Curb
- Tax Lot Line
- Grid Line
- Unpaved Area - General Metals Remedy Performance Area (GMRPA)
- Paved Area (GMRPA)
- Concrete Foundation
- Grid Area
- Pilot Treatability Test Excavation Area
- UP-12 area treated and left in place for future disposal
- IP Remedy Performance Area
- Estimated Shoreline Buffer
- Major Contour (10' interval)
- Minor Contour (2' interval)

0 100
Scale in Feet

Tacoma Metals Site
Tacoma, Washington

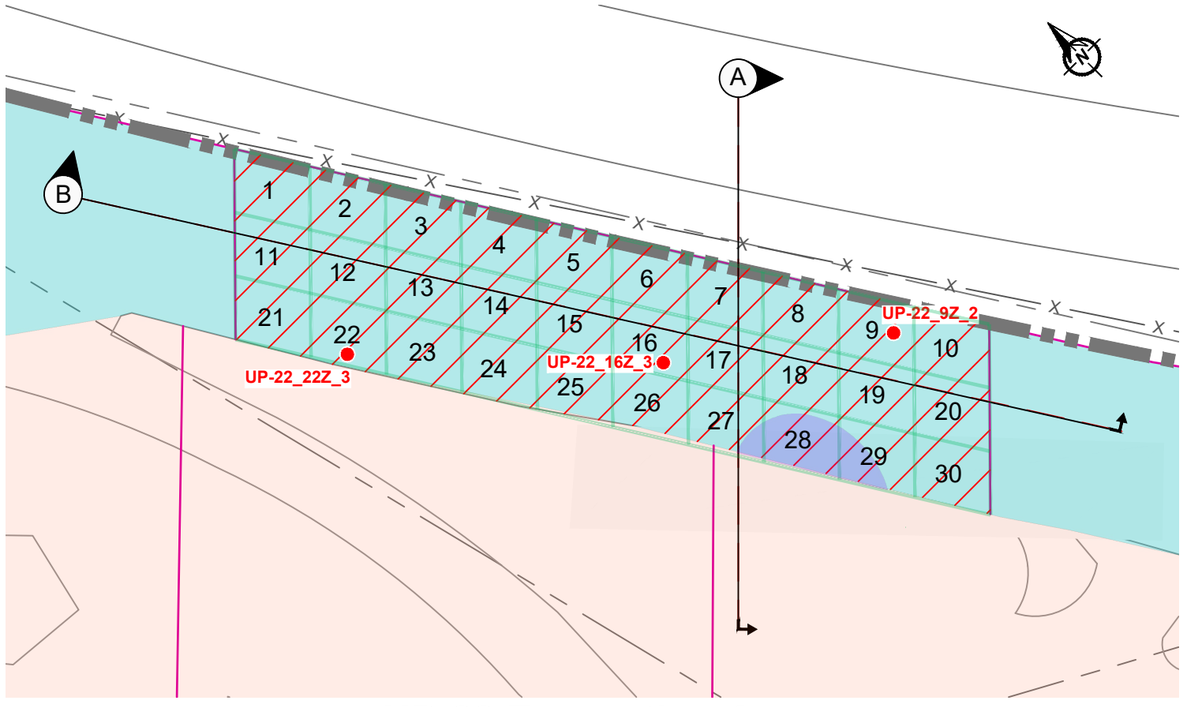
On-Property Area Site Plan

DALTON OLMSTED FUGLEVAND

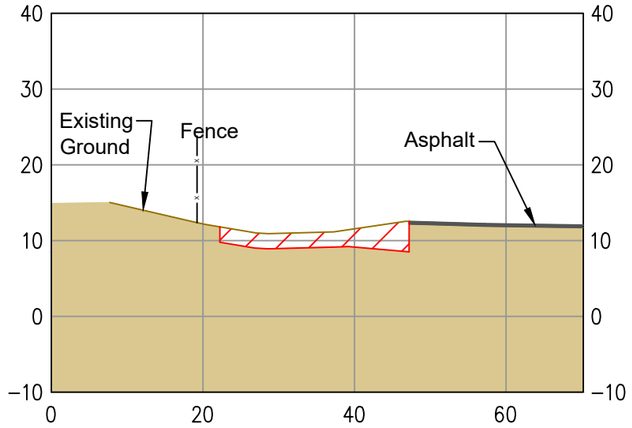
FIGURE 2

11/07/2022

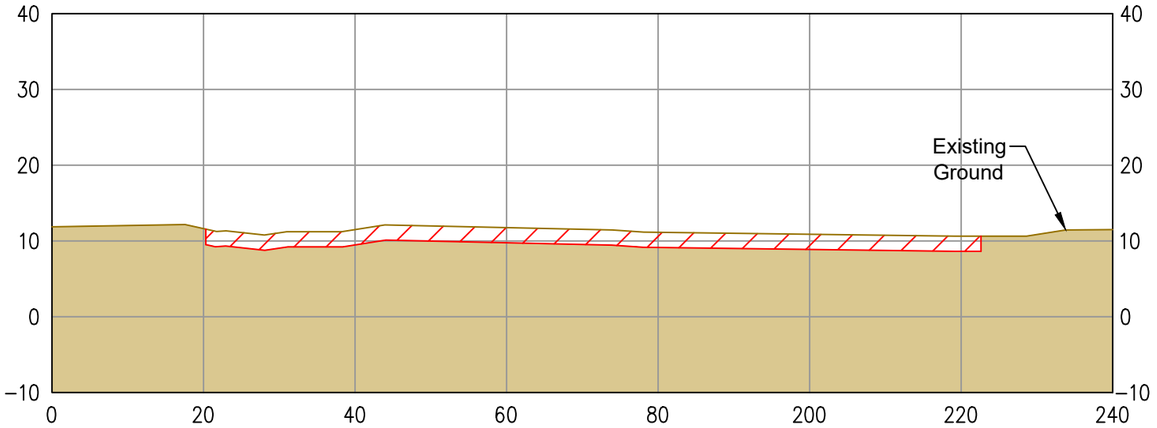
PLOT TIME: 11/7/2022 4:03 PM MOD TIME: 11/7/2022 4:00 PM USER: Kelley Begley DWG: P:\Tacoma Metals\CAD\Figures\2022-10\2022-10 Tacoma Metals-02-Prop Sampling Reneed Grid.dwg



UP-22 Excavation Area



Cross Section A



Cross Section B

Legend

- PCB Confirmation Soil Sample
- Site Boundary
- Grid Line
- PCB Sampling Grid
- Tax Lot Line
- Unpaved Area - General Metals Remedy Performance Area (GMRPA)
- Paved Area (GMRPA)
- Concrete Foundation
- Grid Area
- Pilot Treatability Test Excavation Area and Anticipated Depth
- Petroleum staining and odor including creosote timbers at excavation extent

0 20
Scale in Feet

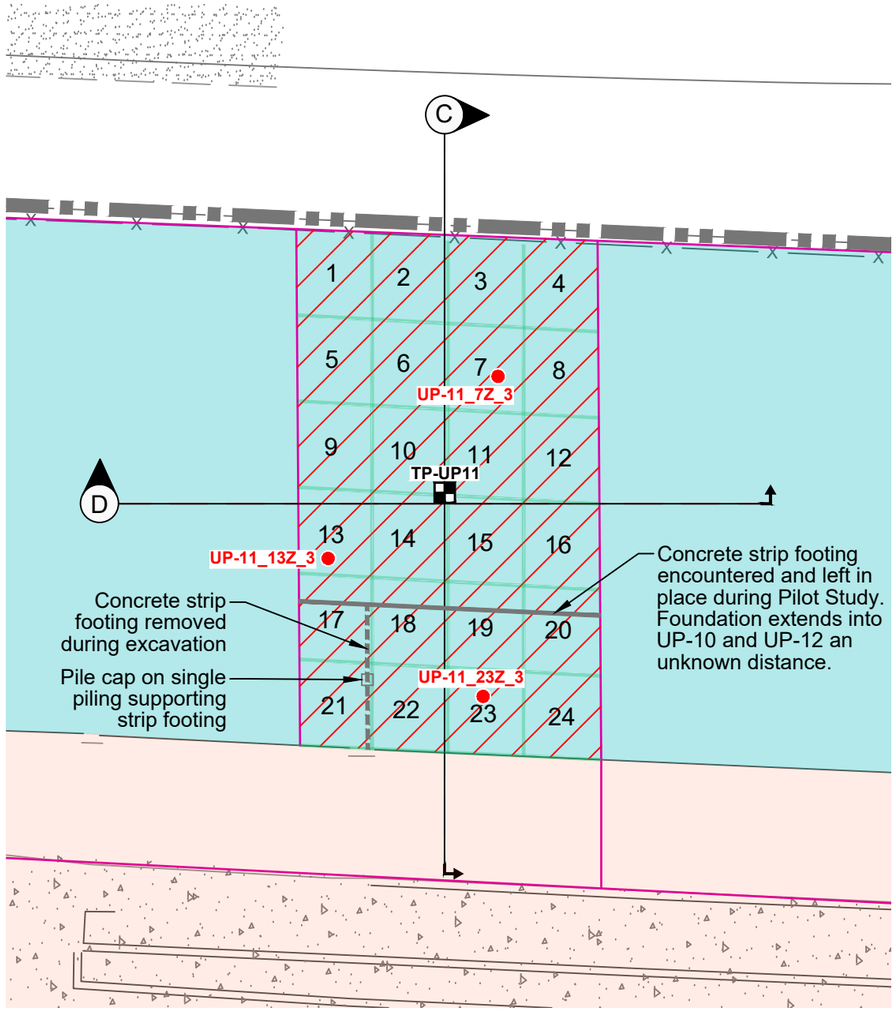
Tacoma Metals Site
Tacoma, Washington

UP-22 Excavation Area and Cross-Sections A-A' & B-B'

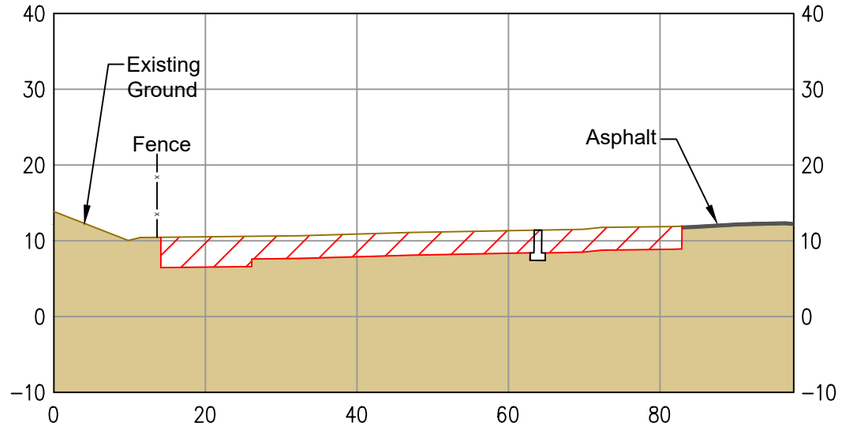
DALTON OLMSTED FUGLEVAND

FIGURE 3

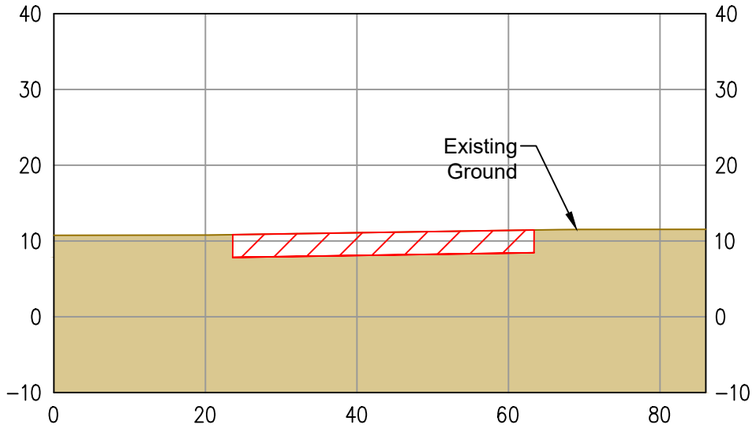
11/07/2022



UP-11 Excavation Area



Cross Section C



Cross Section D

Legend

- Test Pit
- PCB Confirmation Soil Sample
- Site Boundary
- Grid Line
- PCB Sampling Grid
- Tax Lot Line
- Unpaved Area - General Metals Remedy Performance Area (GMRPA)
- Paved Area (GMRPA)
- Concrete Foundation
- Grid Area
- Pilot Treatability Test Excavation Area and Depth

Note:
UP-11 excavation not backfilled to existing grade due to vandalism to equipment. Area to be backfilled to design grades during full-scale remediation of the Site.

0 20
Scale in Feet

Tacoma Metals Site
Tacoma, Washington

UP-11 Excavation Area and Cross-Sections C-C' & D-D'

DALTON OLMSTED FUGLEVAND

FIGURE 4

11/07/2022

DOF DALTON OLMSTED FUGLEVAND

Appendix A

Analytical Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 29, 2022

Trevor Louviere, Project Manager
Dalton Olmsted Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134

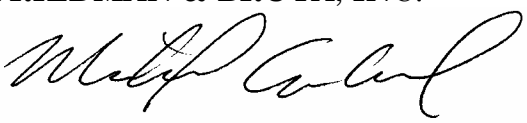
Dear Mr Louviere:

Included are the results from the testing of material submitted on April 26, 2022 from the Tacoma Metals WKD-001, F&BI 204432 project. There are 6 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
DOF0429R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 26, 2020 by Friedman & Bruya, Inc. from the Dalton Olmsted Fuglevand Tacoma Metals WKD-001, F&BI 204432 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dalton Olmsted Fuglevand
204432 -01	Holt-Fill

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	Holt-Fill	Client:	Dalton Olmsted Fuglevand
Date Received:	04/26/22	Project:	Tacoma Metals WKD-001, F&BI 204432
Date Extracted:	04/27/22	Lab ID:	204432-01
Date Analyzed:	04/27/22	Data File:	204432-01.081
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.98
Barium	45.6
Cadmium	<1
Chromium	12.0
Lead	1.80
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKD-001, F&BI 204432
Date Extracted:	04/27/22	Lab ID:	I2-314 mb
Date Analyzed:	04/27/22	Data File:	I2-314 mb.079
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
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Date of Report: 04/29/22
Date Received: 04/26/22
Project: Tacoma Metals WKD-001, F&BI 204432

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 204432-01 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	<5	92	102	75-125	10
Barium	mg/kg (ppm)	50	41.1	86	87	75-125	1
Cadmium	mg/kg (ppm)	10	<5	94	103	75-125	9
Chromium	mg/kg (ppm)	50	11.9	90	99	75-125	10
Lead	mg/kg (ppm)	50	<5	91	102	75-125	11
Mercury	mg/kg (ppm	5	<5	90	109	75-125	19
Selenium	mg/kg (ppm)	5	<5	85	89	75-125	5
Silver	mg/kg (ppm)	10	<5	83	91	75-125	9

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	94	80-120
Barium	mg/kg (ppm)	50	98	80-120
Cadmium	mg/kg (ppm)	10	99	80-120
Chromium	mg/kg (ppm)	50	99	80-120
Lead	mg/kg (ppm)	50	99	80-120
Mercury	mg/kg (ppm)	5	104	80-120
Selenium	mg/kg (ppm)	5	95	80-120
Silver	mg/kg (ppm)	10	94	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.

204432

SAMPLE CHAIN OF CUSTODY

04-26-22

BLI

Page # 1 of 1

Report To TREVOR LOUVER / DAN COOPER

Company DOF

Address

City, State, ZIP SEATTLE WA

Phone 206/660/7466 Email TLouver@DOFNW.com

SAMPLERS (*signature*)

PROJECT NAME: TACOMA METALS

PO #: WA-00 1

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: DOF

TURNAROUND TIME
- ☐ Standard turnaround
- ☒ RUSH FRIDAY 4/29

Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals				Notes
HOLT - FILL	01	4/26/22	1300	SOIL	1								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	DC COOPER	DOF	4/26	1320
Received by:	Eric Young	FB	4/26	1320
Relinquished by:				
Received by:		Samples received at 16 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 5, 2022

Trevor Louviere, Project Manager
Dalton Olmsted Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134

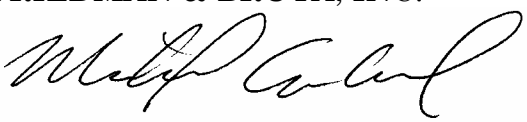
Dear Mr Louviere:

Included are the results from the testing of material submitted on May 3, 2022 from the Tacoma Metals WKG-001, F&BI 205016 project. There are 17 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Matt Dalton. Dave Cooper
DOF0505R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 3, 2022 by Friedman & Bruya, Inc. from the Dalton Olmsted Fuglevand Tacoma Metals WKG-001, F&BI 205016 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dalton Olmsted Fuglevand
205016 -01	UP-22_PRE_0-1
205016 -02	UP-22_STP_0-1
205016 -03	UP-22_PRE_1-2
205016 -04	UP-22_STP_1-2
205016 -05	UP-11_PRE_0-1

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_PRE_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-01 x25
Date Analyzed:	05/04/22	Data File:	205016-01 x25.034
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3,090

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-02
Date Analyzed:	05/03/22	Data File:	205016-02.137
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	16.3
Cadmium	13.0
Selenium	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-02 x2
Date Analyzed:	05/04/22	Data File:	205016-02 x2.036
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Barium	243
Mercury	<2
Silver	<2

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-02 x5
Date Analyzed:	05/04/22	Data File:	205016-02 x5.035
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	86.2
Lead	954

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_PRE_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-03 x5
Date Analyzed:	05/04/22	Data File:	205016-03 x5.037
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1,010

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-04
Date Analyzed:	05/03/22	Data File:	205016-04.139
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.9
Cadmium	18.4
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-04 x2
Date Analyzed:	05/04/22	Data File:	205016-04 x2.040
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Barium	355
Chromium	162
Mercury	<2

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-22_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-04 x5
Date Analyzed:	05/04/22	Data File:	205016-04 x5.039
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	853

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_PRE_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-05 x25
Date Analyzed:	05/04/22	Data File:	205016-05 x25.041
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3,580

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	I2-329 mb
Date Analyzed:	05/03/22	Data File:	I2-329 mb.107
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
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	UP-22_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-02
Date Analyzed:	05/04/22	Data File:	205016-02.051
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	UP-22_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205016-04
Date Analyzed:	05/04/22	Data File:	205016-04.052
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	I2-331 mb
Date Analyzed:	05/04/22	Data File:	I2-331 mb.046
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Date of Report: 05/05/22
Date Received: 05/03/22
Project: Tacoma Metals WKG-001, F&BI 205016

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 205016-01 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	30.2	103	96	75-125	7
Barium	mg/kg (ppm)	50	589	244 b	193 b	75-125	23 b
Cadmium	mg/kg (ppm)	10	30.3	208 b	141 b	75-125	38 b
Chromium	mg/kg (ppm)	50	114	263 b	211 b	75-125	22 b
Lead	mg/kg (ppm)	50	2,190	956 b	544 b	75-125	55 b
Mercury	mg/kg (ppm	5	<5	90	90	75-125	0
Selenium	mg/kg (ppm)	5	<5	117	53 b	75-125	75 b
Silver	mg/kg (ppm)	10	5.73	58 b	56 b	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	92	80-120
Barium	mg/kg (ppm)	50	96	80-120
Cadmium	mg/kg (ppm)	10	97	80-120
Chromium	mg/kg (ppm)	50	93	80-120
Lead	mg/kg (ppm)	50	96	80-120
Mercury	mg/kg (ppm)	5	101	80-120
Selenium	mg/kg (ppm)	5	89	80-120
Silver	mg/kg (ppm)	10	88	80-120

Date of Report: 05/05/22
Date Received: 05/03/22
Project: Tacoma Metals WKG-001, F&BI 205016

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 204480-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	93	92	75-125	1
Barium	mg/L (ppm)	5.0	<1	101	101	75-125	0
Cadmium	mg/L (ppm)	0.5	<1	98	98	75-125	0
Chromium	mg/L (ppm)	2.0	<1	100	99	75-125	1
Lead	mg/L (ppm)	1.0	<1	95	94	75-125	1
Mercury	mg/L (ppm)	1.0	<0.1	109	108	75-125	1
Selenium	mg/L (ppm)	0.5	<1	96	98	75-125	2
Silver	mg/L (ppm)	0.5	<1	93	93	75-125	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	89	80-120
Barium	mg/L (ppm)	5.0	95	80-120
Cadmium	mg/L (ppm)	0.5	95	80-120
Chromium	mg/L (ppm)	2.0	96	80-120
Lead	mg/L (ppm)	1.0	90	80-120
Mercury	mg/L (ppm)	1.0	101	80-120
Selenium	mg/L (ppm)	0.5	94	80-120
Silver	mg/L (ppm)	0.5	88	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.

2050l6

SAMPLE CHAIN OF CUSTODY

05.02.22

TWC 513 002

Page # 1 of 1 BIZ

Report To Matt Dalton, Dave Cooper, T. Louviere

Company DOF

Address

City, State, ZIP Seattle

Phone 425-785-6323 Email tlouviere@dofnw.com

SAMPLERS (*signature*)

PROJECT NAME: Tacoma Metals

PO #: WKG-001

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: DOF

TURNAROUND TIME
- ☐ Standard turnaround
- ☒ RUSH 24 hr
- Rush charges authorized by: T. Louviere

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Met.	TCLP RCRA 8	Lead		Notes
UP-22_PRE_0-1	~~0800~~ 01	4/29/22	0800	S	1										X		09.00 TWC 513
UP-22_STP_0-1	~~1145~~ 02	4/29/22	1145	↓	1								X	X			UP_22_STK_0-1 TWC 513
UP-22_PRE_1-2	~~1200~~ 03	4/29/22	1200		1										X		
UP-22_STP_1-2	04	5/2/22	1122		1								X	X			
UP-11_PRE_0-1	05	5/2/22	1150	↓	1										X		

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Trevor Louviere	DOF	5/2/22	3:55
Received by:	JWH	FBI	5/2/22	3:55
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 11, 2022

Trevor Louviere, Project Manager
Dalton Olmsted Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134

Dear Mr Louviere:

Included are the results from the testing of material submitted on May 3, 2022 from the Tacoma Metals WKG-001, F&BI 205017 project. There are 8 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Matt Dalton, Dave Cooper
DOF0511R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 3, 2022 by Friedman & Bruya, Inc. from the Dalton Olmsted Fuglevand Tacoma Metals WKG-001, F&BI 205017 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dalton Olmsted Fuglevand
205017 -01	UP-22_9Z_2
205017 -02	UP-22_16Z_3
205017 -03	UP-22_22Z_3

All quality control requirements were acceptable.

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-22_9Z_2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205017-01 1/6
Date Analyzed:	05/04/22	Data File:	050329.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	44	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-22_16Z_3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205017-02 1/6
Date Analyzed:	05/04/22	Data File:	050330.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	76	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	7.3 ve
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-22_16Z_3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205017-02 1/60
Date Analyzed:	05/04/22	Data File:	050405.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	95 d	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1260	9.9

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-22_22Z_3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/03/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	205017-03 1/6
Date Analyzed:	05/04/22	Data File:	050404.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	94	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.17
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKG-001
Date Extracted:	05/03/22	Lab ID:	02-1053 mb2 1/6
Date Analyzed:	05/03/22	Data File:	050323.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	86	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 05/11/22
Date Received: 05/03/22
Project: Tacoma Metals WKG-001, F&BI 205017

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 204438-01 cl 1/6 (Matrix Spike) 1/6

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	91	96	29-125	5
Aroclor 1260	mg/kg (ppm)	0.25	<0.02	94	101	25-137	7

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	102	55-137
Aroclor 1260	mg/kg (ppm)	0.25	108	51-150

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.

205017

SAMPLE CHAIN OF CUSTODY

05.03.22

D01

Page # 1 of 1

Report To Matt Dalton, Dave Cooper, Trevor Louviere

Company DOF

Address

City, State, ZIP Seattle

Phone 425-785-6322 Email tlouviere@dofnw.com

SAMPLERS (*signature*)

PROJECT NAME: Tacoma Metals

PO #: WKG-001

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: DOF

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
UP-22_9Z_2	01	5/2/22	1209	S	1							X					
UP-22_16Z_3	02	↓	1211	↓	1							X					
UP-22_22Z_3	03	↓	1213	↓	1							X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Trevor Louviere	DOF	5/2/22	3:55 PM
Received by:	NINA	FBI	5/2/22	3:55 P
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 9, 2022

Trevor Louviere, Project Manager
Dalton Olmsted Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134

Dear Mr Louviere:

Included are the results from the testing of material submitted on May 4, 2022 from the Tacoma Metals, F&BI 205059 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Matt Dalton, Dave Cooper
DOF0509R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 4, 2022 by Friedman & Bruya, Inc. from the Dalton Olmsted Fuglevand Tacoma Metals, F&BI 205059 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dalton Olmsted Fuglevand
205059 -01	UP-11_STP_0-1
205059 -02	UP-11_PRE_1-2
205059 -03	UP-11_PRE_2-3
205059 -04	UP-11_STP_1-2

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-01 x2
Date Analyzed:	05/06/22	Data File:	205059-01 x2.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	47.6
Barium	361
Cadmium	55.1
Mercury	14.1
Selenium	3.98
Silver	11.3

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-01 x25
Date Analyzed:	05/06/22	Data File:	205059-01 x25.075
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Chromium	279
Lead	2,840

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_PRE_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-02 x25
Date Analyzed:	05/06/22	Data File:	205059-02 x25.077
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3,050

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_PRE_2-3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-03 x25
Date Analyzed:	05/06/22	Data File:	205059-03 x25.080
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	2,220

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-04 x5
Date Analyzed:	05/06/22	Data File:	205059-04 x5.083
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	14.6
Barium	234
Cadmium	26.3
Chromium	220
Mercury	9.86
Selenium	<5
Silver	11.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-04 x25
Date Analyzed:	05/06/22	Data File:	205059-04 x25.082
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1,660

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	I2-334 mb
Date Analyzed:	05/05/22	Data File:	I2-334 mb.047
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
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	UP-11_STP_0-1	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-01
Date Analyzed:	05/06/22	Data File:	205059-01.073
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	UP-11_STP_1-2	Client:	Dalton Olmsted Fuglevand
Date Received:	05/04/22	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	205059-04
Date Analyzed:	05/06/22	Data File:	205059-04.074
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals, F&BI 205059
Date Extracted:	05/05/22	Lab ID:	I2-335 mb
Date Analyzed:	05/06/22	Data File:	I2-335 mb.068
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Date of Report: 05/09/22
Date Received: 05/04/22
Project: Tacoma Metals, F&BI 205059

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 205054-02 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	<5	89	86	75-125	3
Barium	mg/kg (ppm)	50	90.3	121	110	75-125	10
Cadmium	mg/kg (ppm)	10	<5	94	92	75-125	2
Chromium	mg/kg (ppm)	50	10.2	110	89	75-125	21 b
Lead	mg/kg (ppm)	50	<5	92	91	75-125	1
Mercury	mg/kg (ppm	5	<5	96	95	75-125	1
Selenium	mg/kg (ppm)	5	<5	78	76	75-125	3
Silver	mg/kg (ppm)	10	<5	80	78	75-125	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	85	80-120
Barium	mg/kg (ppm)	50	97	80-120
Cadmium	mg/kg (ppm)	10	94	80-120
Chromium	mg/kg (ppm)	50	96	80-120
Lead	mg/kg (ppm)	50	94	80-120
Mercury	mg/kg (ppm)	5	94	80-120
Selenium	mg/kg (ppm)	5	86	80-120
Silver	mg/kg (ppm)	10	90	80-120

Date of Report: 05/09/22
Date Received: 05/04/22
Project: Tacoma Metals, F&BI 205059

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 204291-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	100	100	75-125	0
Barium	mg/L (ppm)	5.0	1.05	100	100	75-125	0
Cadmium	mg/L (ppm)	0.5	<1	100	99	75-125	1
Chromium	mg/L (ppm)	2.0	<1	99	100	75-125	1
Lead	mg/L (ppm)	1.0	23.9	138 b	112	75-125	21 b
Mercury	mg/L (ppm)	1.0	<0.1	108	101	75-125	7
Selenium	mg/L (ppm)	0.5	<1	96	98	75-125	2
Silver	mg/L (ppm)	0.5	<1	91	86	75-125	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	102	80-120
Barium	mg/L (ppm)	5.0	101	80-120
Cadmium	mg/L (ppm)	0.5	102	80-120
Chromium	mg/L (ppm)	2.0	102	80-120
Lead	mg/L (ppm)	1.0	98	80-120
Mercury	mg/L (ppm)	1.0	104	80-120
Selenium	mg/L (ppm)	0.5	104	80-120
Silver	mg/L (ppm)	0.5	94	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.

205059

SAMPLE CHAIN OF CUSTODY

05-04-22

B12

Page # 1 of 1

Report To Matt Dalton, Dave Cooper, Trevor Louviere

Company DOF

Address

City, State, ZIP Seattle

Phone 425-785-6322 Email tlouviere@dofnw.com

SAMPLERS (*signature*)

PROJECT NAME: Tacoma Metals

PO #

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: DOF

TURNAROUND TIME
- ☐ Standard turnaround
- ☒ RUSH 24 hr

Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Total Lead	RCRA 8 Met	TCLP RCRA 8		Notes
UP-11_STP_0-1	01	5/3/22	0920	S	1									X	X		
UP-11_PRE_1-2	02	5/3/22	0930	S	1								X				
UP-11_PRE_2-3	03	5/4/22	1215	S	1								X				
UP-11_STP_1-2	04	5/4/22	1235	S	1									X	X		

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Trevor Louviere	DOF	5/4/22	1425
Received by:	Eric Hanson	F&B	5/4/22	1425
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 12, 2022

Trevor Louviere, Project Manager
Dalton Olmsted Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134

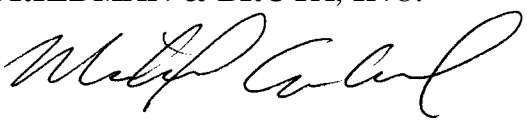
Dear Mr Louviere:

Included are the results from the testing of material submitted on May 5, 2022 from the Tacoma Metals WKG-001, F&BI 205089 project. There are 7 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Matt Dalton, Dave Cooper
DOF0512R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 5, 2022 by Friedman & Bruya, Inc. from the Dalton Olmsted Fuglevand Tacoma Metals WKG-001, F&BI 205089 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dalton Olmsted Fuglevand
205089 -01	UP-11_7Z_3
205089 -02	UP-11_13Z_3
205089 -03	UP-11_23Z_3

All quality control requirements were acceptable.

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-11_7Z_3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/06/22	Lab ID:	205089-01 1/6
Date Analyzed:	05/09/22	Data File:	050914.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	0.031
Aroclor 1260	0.043
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-11_13Z_3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/06/22	Lab ID:	205089-02 1/6
Date Analyzed:	05/09/22	Data File:	050915.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	83	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	UP-11_23Z_3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001
Date Extracted:	05/06/22	Lab ID:	205089-03 1/6
Date Analyzed:	05/09/22	Data File:	050916.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	74	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	0.33
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKG-001
Date Extracted:	05/06/22	Lab ID:	02-1077 mb 1/6
Date Analyzed:	05/09/22	Data File:	050905.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	100	23	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 05/12/22
Date Received: 05/05/22
Project: Tacoma Metals WKG-001, F&BI 205089

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 205089-01 1/6 (Matrix Spike) 1/6

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	102	102	29-125	0
Aroclor 1260	mg/kg (ppm)	0.25	0.041	126	129	25-137	2

Laboratory Code: Laboratory Control Sample 1/6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	117	55-137
Aroclor 1260	mg/kg (ppm)	0.25	123	51-150

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.

205089

SAMPLE CHAIN OF CUSTODY

05-05-22

D01

Page # 1 of 1

Report To Matt Dalton, Dave Cooper, Trevor Louviere

Company DOF

Address 1001 SW Klickitat Way, Suite 208

City, State, ZIP Seattle, WA 98134

Phone 425-785-6322 Email tlouviere@dofnw.com

SAMPLERS (*signature*)	
PROJECT NAME: Tacoma Metals	PO #: WKG-001
REMARKS: Project specific RLs? - Yes / No	INVOICE TO: DOF

TURNAROUND TIME
- [X] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
UP-11-7Z-3	01	5/5/22	1125	S	1							X					
UP-11_13Z-3	02	5/5/22	0747	S	1							X					
UP-11_23Z_3	03	5/5/22	0745	S	1							X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Trevor Louviere	DOF	5/5/22	1505
Received by:	VINH	EPI	5/5/22	1505
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 10, 2022

Trevor Louviere, Project Manager
Dalton Olmsted Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134

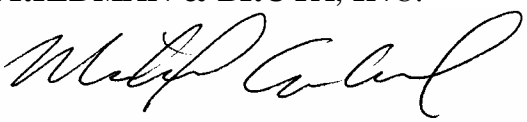
Dear Mr Louviere:

Included are the results from the testing of material submitted on May 5, 2022 from the Tacoma Metals WKG-001, F&BI 205090 project. There are 11 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 have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Matt Dalton, Dave Cooper
DOF0510R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 5, 2022 by Friedman & Bruya, Inc. from the Dalton Olmsted Fuglevand Tacoma Metals WKG-001, F&BI 205090 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Dalton Olmsted Fuglevand
205090 -01	UP-11_STP_2-3
205090 -02	UP-11_PRE_3-4
205090 -03	UP-11_STP_3-4

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_STP_2-3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/06/22	Lab ID:	205090-01
Date Analyzed:	05/06/22	Data File:	205090-01.194
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.37
Barium	112
Cadmium	10.6
Chromium	75.0
Lead	724
Mercury	4.78
Selenium	1.51
Silver	4.38

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_PRE_3-4	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/06/22	Lab ID:	205090-02 x25
Date Analyzed:	05/06/22	Data File:	205090-02 x25.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3,460

Analysis For Total Metals By EPA Method 6020B

Client ID:	UP-11_STP_3-4	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/06/22	Lab ID:	205090-03
Date Analyzed:	05/06/22	Data File:	205090-03.196
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.21
Barium	135
Cadmium	13.9
Chromium	115
Lead	919
Mercury	31.8
Selenium	1.78
Silver	8.69

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/06/22	Lab ID:	I2-336 mb
Date Analyzed:	05/06/22	Data File:	I2-336 mb.087
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
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	UP-11_STP_2-3	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/08/22	Lab ID:	205090-01
Date Analyzed:	05/09/22	Data File:	205090-01.049
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	UP-11_STP_3-4	Client:	Dalton Olmsted Fuglevand
Date Received:	05/05/22	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/08/22	Lab ID:	205090-03
Date Analyzed:	05/09/22	Data File:	205090-03.052
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Analysis for TCLP Metals By EPA Method 6020B and 1311

Client ID:	Method Blank	Client:	Dalton Olmsted Fuglevand
Date Received:	Not Applicable	Project:	Tacoma Metals WKG-001, F&BI 205090
Date Extracted:	05/08/22	Lab ID:	I2-339 mb
Date Analyzed:	05/09/22	Data File:	I2-339 mb.047
Matrix:	Soil/Solid	Instrument:	ICPMS2
Units:	mg/L (ppm)	Operator:	SP

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Arsenic	<1	5.0
Barium	<1	100
Cadmium	<1	1.0
Chromium	<1	5.0
Lead	<1	5.0
Mercury	<0.1	0.2
Selenium	<1	1.0
Silver	<1	5.0

Date of Report: 05/10/22
Date Received: 05/05/22
Project: Tacoma Metals WKG-001, F&BI 205090

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 205087-03 (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	<1	82	87	75-125	6
Barium	mg/kg (ppm)	50	32.2	90	105	75-125	15
Cadmium	mg/kg (ppm)	10	<1	89	92	75-125	3
Chromium	mg/kg (ppm)	50	8.39	81	86	75-125	6
Lead	mg/kg (ppm)	50	4.90	85	88	75-125	3
Mercury	mg/kg (ppm	5	<1	98	95	75-125	3
Selenium	mg/kg (ppm)	5	<1	77	80	75-125	4
Silver	mg/kg (ppm)	10	<1	83	88	75-125	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	89	80-120
Barium	mg/kg (ppm)	50	92	80-120
Cadmium	mg/kg (ppm)	10	92	80-120
Chromium	mg/kg (ppm)	50	92	80-120
Lead	mg/kg (ppm)	50	92	80-120
Mercury	mg/kg (ppm)	5	100	80-120
Selenium	mg/kg (ppm)	5	84	80-120
Silver	mg/kg (ppm)	10	85	80-120

Date of Report: 05/10/22
Date Received: 05/05/22
Project: Tacoma Metals WKG-001, F&BI 205090

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/SOLID SAMPLES FOR TCLP METALS USING EPA METHODS 6020B AND 1311

Laboratory Code: 205090-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/L (ppm)	1.0	<1	94	93	75-125	1
Barium	mg/L (ppm)	5.0	<1	96	96	75-125	0
Cadmium	mg/L (ppm)	0.5	<1	94	93	75-125	1
Chromium	mg/L (ppm)	2.0	<1	94	92	75-125	2
Lead	mg/L (ppm)	1.0	<1	91	90	75-125	1
Mercury	mg/L (ppm)	1.0	<0.1	91	89	75-125	2
Selenium	mg/L (ppm)	0.5	<1	93	97	75-125	4
Silver	mg/L (ppm)	0.5	<1	85	80	75-125	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/L (ppm)	1.0	93	80-120
Barium	mg/L (ppm)	5.0	98	80-120
Cadmium	mg/L (ppm)	0.5	95	80-120
Chromium	mg/L (ppm)	2.0	94	80-120
Lead	mg/L (ppm)	1.0	90	80-120
Mercury	mg/L (ppm)	1.0	104	80-120
Selenium	mg/L (ppm)	0.5	98	80-120
Silver	mg/L (ppm)	0.5	89	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.

205090

SAMPLE CHAIN OF CUSTODY

05-05-22

B12

Page # 1 of 1

Report To Matt Dalton, Dave Cooper, Trevor Louviere

Company DOF

Address 1001 SW Klickitat Way, Ste 200B

City, State, ZIP Seattle, WA 98134

Phone 425-735-6322 Email tlouviere@dofnw.com

SAMPLERS (*signature*)

PROJECT NAME: Tacoma Metals

PO #: WKG-001

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: DOF

TURNAROUND TIME

☐ Standard turnaround

☒ RUSH 24 hr

Rush charges authorized by: T. Louviere

SAMPLE DISPOSAL

☐ Archive samples

☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Total Lead	RCRA 8 Met	TCLP RCRA 8		Notes
UP-11_STP_2-3	01	5/4/22	1545	S	1									X	X		
UP-11_PRE_3-4	02	5/4/22	1555	S	1								X				
UP-11_STP_3-4	03	5/5/22	1130	S	1									X	X		

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Trevor Louviere	DOF	5/5/22	1505
Received by:	VINH	FBI	5/5/22	1515
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

DOF DALTON OLMSTED FUGLEVAND

Appendix B

Geotechnical Reports

FIELD REPORT

AESI
Associated Earth Sciences
Kirkland | Tacoma | Mount Vernon
425-827-7701| www.aesgeo.com

Date	Project Name	Project No.	Report No.
05/05/2022	Tacoma Metals	202200178E001	001
Location	**Municipality**	**AESI Project Manager**	**AESI Field Rep**
1919 Portland Ave 98401	Tacoma	Matt Miller	Kelsey McCrady
Permit No.	**Client/Owner**	**Attn**	**Requested By**
	Dalton, Olmstead & Fuglevand, Inc.	Dave Cooper	Client
Engineer/Architect	**General Contractor**	**Grading Contractor**	**Weather**
Dalton Olmstead & Fuglevand		Clearcreek Contractactos	Rain, 50's

THE FOLLOWING WAS NOTED:

AESI onsite, as requested, to observe the backfill of two test pits. Upon arrival, we met with Trevor Louviere of Dalton, Olmstead & Fuglevand (DOF).

UP-22 Pit Backfill:

While onsite, AESI observed the contractor beginning backfill for UP-22 in the southeastern corner of the site (see **Figure 1** for location). UP-22 was approximately 2-feet deep by 23-feet wide and 50-feet long. The contractor was using import gravel borrow from the Icon pit. Backfill was placed in 8-inch thick lifts and was compacted using a hydraulic vibratory plate compactor. Due to the heavy rain today, the backfill was observed to be above optimum moisture and yielded underfoot after compactive efforts. The contractor stated that work will cease until tomorrow to allow the material to drain enough to achieve the required density.

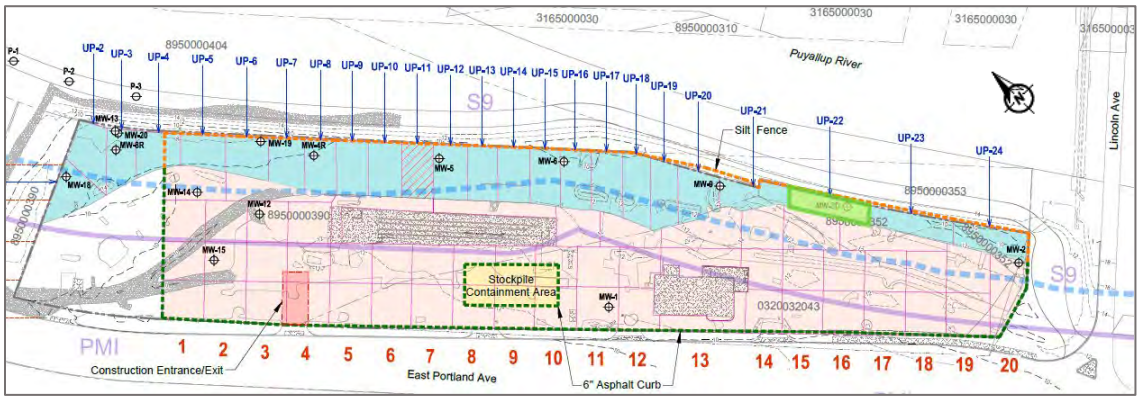


Figure 1: Green highlight indicates location of UP-22 observed today.

Photo 1: Wet backfill as observed today in UP-22. Photo faces southeast.

Date Sent: _____ Principal / PM: Matt Miller

This document is considered a DRAFT until signed or initialed by an AESI Principal or Project Manager

FIELD REPORT

AESI
Associated Earth Sciences
Kirkland | Tacoma | Mount Vernon
425-827-7701| www.aesgeo.com

Date	Project Name	Project No.	Report No.
05/06/2022	Tacoma Metals	202200178E001	002
Location	**Municipality**	**AESI Project Manager**	**AESI Field Rep**
1919 Portland Ave 98401	Tacoma	Matt Miller	Kelsey McCrady
Permit No.	**Client/Owner**	**Attn**	**Requested By**
	Dalton, Olmstead & Fuglevand, Inc.	Dave Cooper	Client
Engineer/Architect	**General Contractor**	**Grading Contractor**	**Weather**
Dalton Olmstead & Fuglevand		Clearcreek Contractors	Rain showers, 50's

THE FOLLOWING WAS NOTED:

AESI onsite, as requested, to observe the backfill of two test pits. Upon arrival, we met with Trevor Louviere of Dalton, Olmstead & Fuglevand (DOF).

UP-22 Pit Backfill:

While onsite, AESI observed the contractor continuing backfill for the 2-foot deep UP-22 in the southeastern corner of the site (see **Figure 1** for location). The contractor was using import gravel borrow from the Icon pit. The contractor had placed a single 8-inch lift yesterday in UP-22 before ceasing compactive efforts for the day. The contractor compacted the lift again today and AESI noted the area appeared firm and unyielding underfoot. The contractor placed two 8-inch thick lifts on top of the first lift and each lift was compacted using a hydraulic vibratory plate compactor. Due to the mid-morning rain, the top lift of backfill was observed to be above optimum moisture and yielded underfoot after compactive efforts. The contactor also attempted to backfill UP-11 in the northeast area of the site. Backfill was above optimum moisture in that area as well, and AESI noted yielding underfoot. The contractor stated that work will cease until tomorrow to allow the material to drain enough to achieve the required density. While onsite, AESI took 4 tests in the backfill using a nuclear densometer gauge in UP-22 and all tests passed the site minimum specifications of 95%. See **Table 1** below for compaction results and **Figure 1** for locations.

Table 1: Compaction Test Results – UP-22 Backfill

Test No.	Location	Approx. Depth (in) (below GS)	Proctor (ASTM D1557)	Dry Density (pcf)	Moisture %	Compaction %	Pass/Fail
1	UP-22	16	127.4/6.0	123.1	9.5	96	Pass
2	UP-22	16	127.4/6.0	122.0	9.9	95	Pass
3	UP-22	8	127.4/6.0	120.5	10.5	95	Pass
4	UP-22	8	127.4/6.0	121.2	10.7	95	Pass

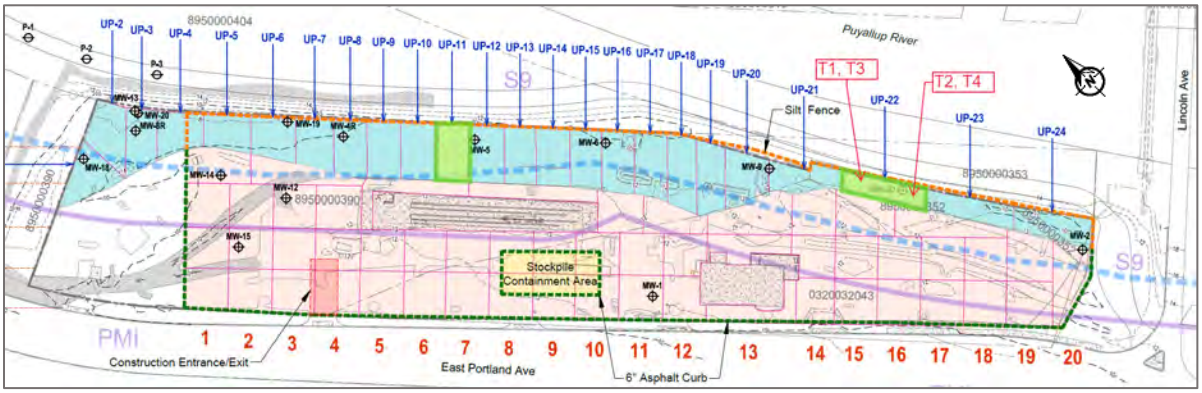


Figure 1: Green highlight indicates locations observed today. Red locations indicate density tests.

Date Sent: _____ Principal / PM: Matt Miller

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FIELD REPORT

Date	Project Name	Project No.	Report No.
05/06/2022	Tacoma Metal	202200178E001	E002

Photo 1: Backfill as observed today in UP-22. Photo faces southeast.

FIELD REPORT

AESI
Associated Earth Sciences
Kirkland | Tacoma | Mount Vernon
425-827-7701| www.aesgeo.com

Date	Project Name	Project No.	Report No.
05/09/2022	Tacoma Metals	202200178E001	003
Location	**Municipality**	**AESI Project Manager**	**AESI Field Rep**
1919 Portland Ave 98401	Tacoma	Matt Miller	Kelsey McCrady
Permit No.	**Client/Owner**	**Attn**	**Requested By**
	Dalton, Olmstead & Fuglevand, Inc.	Dave Cooper	Client
Engineer/Architect	**General Contractor**	**Grading Contractor**	**Weather**
Dalton Olmstead & Fuglevand		Clearcreek Contractors	Mostly Sunny, 50's

THE FOLLOWING WAS NOTED:

AESI onsite, as requested, to observe the backfill of two test pits. Upon arrival, we met with Trevor Louviere of Dalton, Olmstead & Fuglevand (DOF).

UP-22 Pit Backfill:

While onsite, AESI observed the contractor continuing backfill for the 2-foot deep UP-22 in the southeastern corner of the site (see **Figure 1** for location). The contractor was using import gravel borrow from the Icon pit. The contractor compacted the top lift again today and AESI noted the area appeared firm and unyielding underfoot. While onsite, AESI took 2 tests in the UP-22 backfill using a nuclear densometer gauge and all tests passed the site minimum specifications of 95%. See **Table 1** for compaction results and **Figure 1** for locations.

UP-11 Pit Backfill:

While onsite, AESI observed as the contractor recompacted the single 8-inch thick lift of gravel borrow placed on May 6th (see **FR002**) placed in the 2 to 4.5-foot deep UP-11 pit. The contractor then continued backfilling using 8-inch thick lifts and compacting each lift using a hydraulic vibratory plate compactor (hoe-pack). AESI noted the backfill appeared firm and unyielding underfoot. The contractor ceased backfilling at approximately 1-foot below ground surface due to material supply. The contractor did not perform and compactive efforts on the backfill placed between the foundation wall and the street. While onsite, AESI took 10 tests in the UP-11 backfill using a nuclear densometer gauge and all tests passed the site minimum specifications of 95%. See **Table 1** for compaction results and **Figure 1** for locations.

Table 1: Compaction Test Results – UP-22 and UP-11 Backfill

Test No.	Location	Approx. Depth (in) (below GS)	Proctor (ASTM D1557)	Dry Density (pcf)	Moisture %	Compaction %	Pass/Fail
1	UP-22	0	127.4/6.0	122.2	9.0	95	Pass
2	UP-22	0	127.4/6.0	120.4	7.8	95	Pass
3	UP-11	46	127.4/6.0	120.7	12.7	95	Pass
4	UP-11	46	127.4/6.0	121.0	11.2	95	Pass
5	UP-11	38	127.4/6.0	122.4	9.1	96	Pass
6	UP-11	38	127.4/6.0	122.9	8.7	96	Pass
7	UP-11	30	127.4/6.0	122.8	10.0	96	Pass
8	UP-11	30	127.4/6.0	123.1	9.9	97	Pass
9	UP-11	22	127.4/6.0	122.5	9.5	96	Pass
10	UP-11	22	127.4/6.0	122.0	10.1	96	Pass
11	UP-11	12	127.4/6.0	121.8	9.2	96	Pass
12	UP-11	12	127.4/6.0	120.9	10.2	95	Pass

Date Sent: _____ Principal / PM: Matt Miller

This document is considered a DRAFT until signed or initialed by an AESI Principal or Project Manager

FIELD REPORT

Date	Project Name	Project No.	Report No.
05/10/2022	Tacoma Metal	202200178E001	E003

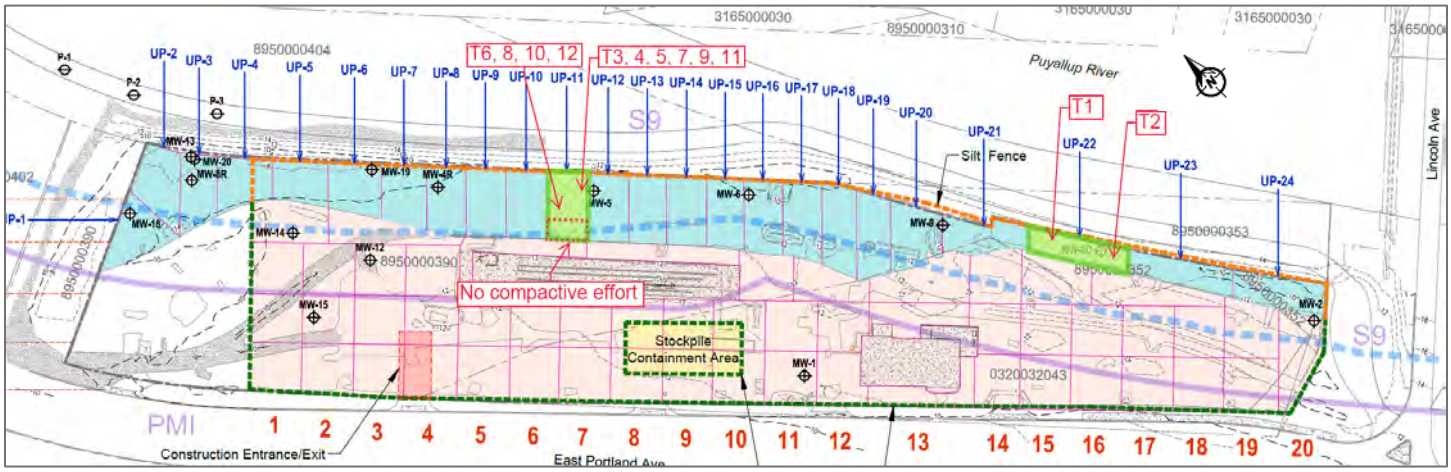

Figure 1: Green highlights indicate locations observed today. Red locations indicate density tests.

Photo 1: Backfill as observed today in UP-11. Area in the foreground was not compacted. Photo faces east.

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Appendix C

Environmental Protection Agency PCB Documentation

Trevor Louviere

From: Matt Dalton
Sent: Sunday, July 24, 2022 1:18 PM
To: Trevor Louviere
Subject: Fwd: Self-Implementing Cleanup Notification pursuant to 40 CFR 761.61(a), Tacoma Metals Site in Tacoma, Washington

See below. Looks like we have the ok to move forward from EPA. I will call you tomorrow to discuss. I want to be sure Melinda is on board. M

Get Outlook for iOS

From: Feldhahn, Brett <Feldhahn.Brett@epa.gov>
Sent: Thursday, July 21, 2022 5:55 PM
To: Matt Dalton
Cc: Ogle, Kimberly; mborgens@schn.com; mcusma@schn.com; 'Myers, Mark'; Martindale, Gary (DNR); Smith, Andrew (ECY)
Subject: RE: Self-Implementing Cleanup Notification pursuant to 40 CFR 761.61(a), Tacoma Metals Site in Tacoma, Washington

Matt,

I've reviewed the self-implementing cleanup notification that you submitted on behalf of General Metals of Tacoma on June 21, 2022, and have concluded that the notification is acceptable. No further EPA approval is currently necessary with the understanding that, once a final remedy is selected for the site, the EPA will be consulted and an application for risk-based disposal approval will be submitted in accordance with 40 CFR § 761.61(c).

Note that once this cleanup is underway, the person conducting the cleanup must provide any proposed changes from the notification to the EPA Regional Administrator in writing no less than 14 calendar days prior to the proposed implementation of the change. The EPA Regional Administrator will determine in his or her discretion whether to accept the change, and will respond to the change notification verbally within 7 calendar days and in writing within 14 calendar days of receiving it. If the EPA Regional Administrator does not respond verbally within 7 calendar days and in writing within 14 calendar days of receiving the change notice, the person who submitted it may deem it complete and acceptable and proceed with the cleanup according to the information in the change notice provided to the EPA Regional Administrator.

Please reach out with any questions.

Thank you,
Brett

Brett Feldhahn, PCB Coordinator
U.S. Environmental Protection Agency | Region 10
☎ (206) 553-2899 | ✉ feldhahn.brett@epa.gov

USEPA	United States **Environmental Protection Agency** Washington, DC 20460	Form Approved OMB No. 2070-0112

Notification of PCB Activity

Return To:	**For Official Use Only**
Document Control Officer (5305P) Office of Solid Waste U.S. Environmental Protection Agency 1200 Pennsylvania Ave., N.W. Washington, DC 20460-0001	

1. Name of Facility	Name of Owner Facility	2. EPA Identification Number (if already assigned under RCRA)
Tacoma Metals Site	General Metals of Tacoma	WAD102875556

3. Facility Mailing Address (Street or PO Box, City, State, & Zip Code)	4. Location of Facility (No. Street, City, State, & Zip Code)
PO Box 10047 Portland, OR 97296	1919 E Portland Avenue Tacoma, WA 98421

5. Installation Contact (Name and Title)	6. Type of PCB Activity (Mark 'X' in appropriate box. See Instructions.
Melinda Borgens Senior Environmental Manager - Corporate Programs	☒ A. Generator w/onsite storage facility ☐ B. Storer (Commercial) ☐ C. Transporter ☐ D. R&D/Treatability ☐ E. Approved Disposer ☐ F. Scrap Metal Recovery Oven/Smelter, High Efficiency Boilers
Telephone Number (Area Code and Number) (503) 327-6822	

7. Certification

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as a company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signature	Name and Official Title (Type of Print)	Date Signed
Melinda Borgens	Melinda Borgens Senior Environmental Manager Corporate Programs	7-29-22

Paperwork Reduction Act Notice

The annual public burden for this collection of information is estimated to average 0.57 hours per response. This estimate includes time for reading instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division, U.S. Environmental Protection Agency (mail code 2822), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460-0001. Include the OMB number identified above in any correspondence. Do not send the completed form to this address. The actual information or form should be submitted in accordance with the instructions accompanying the form, or as specified in the corresponding regulations.

DOF DALTON OLMSTED FUGLEVAND

Appendix D

Non-Hazardous Soil Disposal Weight Tickets

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179534
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	SS213	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	BOB COMBS		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 09:16:35	SCALE 1	galtheim		Gross	103820 lb*
Out	09/12/2022 09:16:35		galtheim		Tare	41000 lb*
			* Manual Weight		Net	62820 lb
					Tons	31.41

Comments REPLACEMENT FOR 179521-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	31.41	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	31.41	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179535
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	SS159	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	MIKE STOREM		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/13/2022 13:45:53	SCALE 1	galtheim		Gross	87200 lb*
Out	09/13/2022 13:45:53		galtheim		Tare	42440 lb*
			* Manual Weight		Net	44760 lb
					Tons	22.38

Comments REPLACEMENT FOR 179495-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	22.38	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	22.38	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179536
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	CTI 410	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	MARK		
Route		Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/13/2022 12:01:20	SCALE 1	galtheim		Gross	97380 lb*
Out	09/13/2022 12:01:20		galtheim		Tare	41800 lb*
			* Manual Weight		Net	55580 lb
					Tons	27.79

Comments REPLACEMENT FOR 179491-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	27.79	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	27.79	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179537
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	CTI 411	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	GEORGE GEORGE		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound	Gross	94800 lb*
In	09/13/2022 11:39:18	SCALE 1	galtheim		Tare	41720 lb*
Out	09/13/2022 11:39:18		galtheim		Net	53080 lb
			* Manual Weight		Tons	26.54

Comments REPLACEMENT FOR 179488-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	26.54	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	26.54	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179538
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *
Ticket Date	09/13/2022	Vehicle#	SS159
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	MIKE STOREM
Route	AK	Check#	
Hauling Ticket#		Billing#	0000836
Destination		Grid	
PO#	138534OR		

Volume

	Time	Scale	Operator	Inbound		
In	09/13/2022 11:07:01	SCALE 1	galtheim		Gross	99680 lb*
Out	09/13/2022 11:07:01		galtheim		Tare	42440 lb*
			* Manual Weight		Net	57240 lb
					Tons	28.62

Comments REPLACEMENT FOR 179475-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	28.62	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	28.62	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179539
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	828	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	STEVE CHANDLER		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/13/2022 09:53:21	SCALE 1	galtheim		Gross	98500 lb*
Out	09/13/2022 09:53:21		galtheim		Tare	41480 lb*
			* Manual Weight		Net	57020 lb
					Tons	28.51

Comments REPLACEMENT FOR 179473-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	28.51	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	28.51	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179540
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	CTI 410	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	MARK		
Route		Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/13/2022 09:30:38	SCALE 1	galtheim		Gross	96720 lb*
Out	09/13/2022 09:30:38		galtheim		Tare	41800 lb*
			* Manual Weight		Net	54920 lb
					Tons	27.46

Comments REPLACEMENT FOR 179471-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	27.46	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	27.46	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179541
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	SS159	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	MIKE STOREM		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/13/2022 09:15:17	SCALE 1	galtheim		Gross	98300 lb*
Out	09/13/2022 09:15:17		galtheim		Tare	42440 lb*
			* Manual Weight		Net	55860 lb
					Tons	27.93

Comments REPLACEMENT FOR 179468-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	27.93	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	27.93	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179542
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/13/2022	Vehicle#	CTI 411	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	GEORGE GEORGE		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/13/2022 09:09:14	SCALE 1	galtheim		Gross	99860 lb*
Out	09/13/2022 09:09:14		galtheim		Tare	41720 lb*
			* Manual Weight		Net	58140 lb
					Tons	29.07

Comments REPLACEMENT FOR 179467- GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	29.07	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	29.07	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179543
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	828	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	STEVE CHANDLER		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 14:38:54	SCALE 1	galtheim		Gross	97180 lb*
Out	09/12/2022 14:38:54		galtheim		Tare	41480 lb*
			* Manual Weight		Net	55700 lb
					Tons	27.85

Comments REPLACEMENT FOR 179461-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	27.85	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	27.85	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179546
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *
Ticket Date	09/12/2022	Vehicle#	SS159
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	MIKE STOREM
Route	AK	Check#	
Hauling Ticket#		Billing#	0000836
Destination		Grid	
PO#	138534OR		

Volume

	Time	Scale	Operator	Inbound		
In	09/12/2022 13:45:49	SCALE 1	galtheim		Gross	100680 lb
Out	09/12/2022 13:45:49		galtheim		Tare	42440 lb
					Net	58240 lb
					Tons	29.12

Comments SILVER STREAK
AH REPLACEMENT TICKET FOR TICKET # 179459

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	29.12	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	29.12	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179547
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	SS159	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	MIKE STOREM		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 09:27:03	SCALE 1	galtheim		Gross	102580 lb*
Out	09/12/2022 09:27:03		galtheim		Tare	42440 lb*
			* Manual Weight		Net	60140 lb
					Tons	30.07

Comments REPLACEMENT FOR 179436-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	30.07	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	30.07	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179548
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	828	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	STEVE CHANDLER		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 09:47:46	SCALE 1	galtheim		Gross	106180 lb*
Out	09/12/2022 09:47:46		galtheim		Tare	41480 lb*
			* Manual Weight		Net	64700 lb
					Tons	32.35

Comments REPLACEMENT FOR 179438

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	32.35	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	32.35	Tons				

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179549
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	SS213	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	BOB COMBS		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 11:26:07	SCALE 1	galtheim		Gross	100500 lb*
Out	09/12/2022 11:26:07		galtheim		Tare	41000 lb*
			* Manual Weight		Net	59500 lb
					Tons	29.75

Comments REPLACEMENT FOR 179447

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	29.75	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	29.75	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179551
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	SS159	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	MIKE STOREM		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 11:30:00	SCALE 1	galtheim		Gross	99140 lb*
Out	09/12/2022 11:30:00		galtheim		Tare	42440 lb*
			* Manual Weight		Net	56700 lb
					Tons	28.35

Comments REPLACEMENT FOR 179448-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	28.35	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	28.35	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179552
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	828	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	STEVE CHANDLER		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 12:23:02	SCALE 1	galtheim		Gross	103700 lb*
Out	09/12/2022 12:23:02		galtheim		Tare	41480 lb*
			* Manual Weight		Net	62220 lb
					Tons	31.11

Comments REPLACEMENT FOR 179452- GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	31.11	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	31.11	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

WASTE MANAGEMENT

Alaska Street
70 S Alaska Street
Seattle, WA, 98134

Reprint
Ticket# 179553
Ph: 206 763 5025

Customer Name	HOLT SERVICES INC HOLT SERVIC	Carrier	SELF HAULER *		
Ticket Date	09/12/2022	Vehicle#	SS213	Volume	
Payment Type	Credit Account	Container			
Manual Ticket#		Driver	BOB COMBS		
Route	AK	Check#			
Hauling Ticket#		Billing#	0000836		
Destination		Grid			
PO#	138534OR				

	Time	Scale	Operator	Inbound		
In	09/12/2022 13:38:20	SCALE 1	galtheim		Gross	96900 lb*
Out	09/12/2022 13:38:20		galtheim		Tare	41000 lb*
			* Manual Weight		Net	55900 lb
					Tons	27.95

Comments REPLACEMENT FOR 179458-GA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spcl Benef. Use-Tons-Spe	100	27.95	Tons				PIERCE
2	GONDOLA T-GONDOLA TON	100	27.95	Tons				PIERCE

Total Tax
Total Ticket

Driver`s Signature

DOF DALTON OLMSTED FUGLEVAND

Appendix E

Hazardous Waste Certificates of Disposal

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/15/22 as described on Shipping Document number 015793903FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072901

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/15/22	LANDFILL 14	015793903FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/15/22 as described on Shipping Document number 015793903FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072901

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265352
09/22/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793907FLE.

Profile Number: OR351438
CWM Tracking ID: 49070901
CWM Unit #: 1*0
Disposal Date: 09/13/22

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265275
09/20/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/14/22 as described on Shipping Document number 015793904FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072101

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/14/22	LANDFILL 14	015793904FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/14/22 as described on Shipping Document number 015793904FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072101

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265280
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/14/22 as described on Shipping Document number 015793905FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072401

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/14/22	LANDFILL 14	015793905FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/14/22 as described on Shipping Document number 015793905FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072401

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265282
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/14/22 as described on Shipping Document number 015793908FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072301

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/14/22	LANDFILL 14	015793908FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/14/22 as described on Shipping Document number 015793908FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49072301

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Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265281
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793909FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49070701

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/13/22	LANDFILL 14	015793909FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793909FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49070701

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265287
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793910FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49070801

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/13/22	LANDFILL 14	015793910FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793910FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49070801

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or accompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265288
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793911FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49070601

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/13/22	LANDFILL 14	015793911FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/13/22 as described on Shipping Document number 015793911FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49070601

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C 1001 and 15 U.S.C. 2615) I certify that the information contained in or aocompanying this document is true accurate and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true accurate and complete.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265286
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from GENERAL METALS OF TACOMA on 09/12/22 as described on Shipping Document number 015793912FLE. CWM OF THE NORTHWEST hereby certifies that the above described material was landfilled in accordance with the 40 CFR part 761 as it pertains to the land disposal of polychlorinated biphenyl contaminated materials.

Profile Number: OR351438
CWM Tracking ID: 49067401

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/12/22	LANDFILL 14	015793912FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

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Profile Number: OR351438
CWM Tracking ID: 49067401

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Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265285
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

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Profile Number: OR351438
CWM Tracking ID: 49067201

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/12/22	LANDFILL 14	015793913FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

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Profile Number: OR351438
CWM Tracking ID: 49067201

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Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265284
09/21/22

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

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Profile Number: OR351438
CWM Tracking ID: 49066901

Process	CWM Unit	Xfer Date	Site Location	Gen #
800 BULK/PCB/LANDFILL	1*0	09/12/22	LANDFILL 14	015793914FLE

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

GENERAL METALS OF TACOMA
ATTN: MANIFEST SECTION
WAD102875556
1919 PORTLAND AVE E
TACOMA WA 98421

CERTIFICATE OF DISPOSAL

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Profile Number: OR351438
CWM Tracking ID: 49066901

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Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 265283
09/21/22