February 26, 2025

Nicholas Efthimiadis
Mercy Housing Northwest
6930 Martin Luther King Jr. Way South
Seattle, Washington 98118

Via email: Nicholas.efthimiadis@mercyhousing.org

Regarding: Limited Soil Assessment for Arsenic and Lead
Mary's Place Burien
12845 Ambaum Blvd SW
Burien, Washington 98146
PBS Project 25003448

Dear Mr. Efthimiadis:

PBS Engineering and Environmental LLC (PBS) has prepared this letter report for Mercy Housing Northwest (Client) to document soil sampling activities conducted on January 22 and 30, 2025, at the Mary's Place Burien property in Burien, Washington (the Site; see Figure 1). The Site is identified as King County Parcel Number 7835800100 and is designated as a single Decision Unit (DU), encompassing approximately 4.30 acres. The Site includes a 23,000-square-foot building, along with associated parking lots and driveways.

PROJECT BACKGROUND

A review of a Phase I Environmental Site Assessment (ESA) conducted by PBS in December 2024 indicated that the Site is located within the Tacoma Smelter Plume mapped area associated with the former Asarco smelter in Tacoma. The Asarco Company operated a copper smelter in Tacoma from 1890 to 1985. Smelter operations emitted airborne particulates containing arsenic, lead, and other heavy metals, which were dispersed over a wide region of the Puget Sound. The Washington State Department of Ecology (Ecology) maintains an online map indicating that the Site is located in an area where predicted arsenic concentrations may range between 20 parts per million (ppm) and 40 ppm. Deposits from the smelter particulates typically affect the surface to a depth of approximately 6 inches. The majority of the Site was cleared of forest land in the 1940s. The current Site development includes a grass-covered surface and an asphalt-paved parking lot in the eastern portion, a facility building in the central portion, and a playground, followed by overgrown vegetation and trees, in the western portion. Based on the estimated concentrations of lead and arsenic in the soils at the Site, PBS considered the deposition from the Tacoma Smelter Plume to represent an environmental condition for the Site.

Ecology's Tacoma Smelter Plume Model Remedies Guidance (Smelter Plume Guidance) recommends soil sampling at properties in areas with estimated arsenic levels above the state cleanup level of 20 parts per million (ppm)[1]. Ecology's "Everett and Tacoma Smelter Search" web page https://fortress.wa.gov/ecy/smeltersearch/ maps the Site within a zone of potential arsenic concentrations ranging from 20 milligrams per kilogram (mg/kg) to 40 mg/kg. Thus, the 20 mg/kg to 40 mg/kg range can be considered the "baseline" for arsenic concentrations in near surface soils expected on Site.

[1] "Tacoma Smelter Plume Model Remedies Guidance: Sampling and cleanup of arsenic and lead contaminated soils", Washington State Department of Ecology, July 2019, Publication No. 19-09-101

REGULATORY CRITERIA

Ecology's Model Toxics Control Act (MTCA) has established cleanup levels (CULs) for arsenic and lead for unrestricted land use that are protective of human health and the environment[2]. Ecology's MTCA Method A CULs for unrestricted land use for arsenic and lead are applicable for comparison to any single soil sample concentration. The CULs for arsenic and lead are presented below:

- The CUL for arsenic is 20 mg/kg.
- The CUL for lead is 250 mg/kg.

For reference, Ecology conducted a study to determine natural background concentrations of metals in soil for the Puget Sound area[3]. The study found that the natural background concentration for arsenic in soil is 7.0 parts per million (ppm) and 24 ppm for lead. Parts per million is equivalent to mg/kg.

Furthermore, the July 2019 Tacoma Smelter Plume Model Remedies Guidance standards were used to evaluate the remedial methods and cleanup approaches per Ecology's Standards. The July 2019 Tacoma Smelter Plume Model Remedies Guidance requires remedial action if any individual soil samples exceed 40 mg/kg total arsenic and/or 500 mg/kg total lead. The area encompassing the one soil sample (Figure 1) listed above with concentrations of lead above the 500 mg/kg cleanup level will need to be mitigated using one of the model remedies that Ecology has developed for Tacoma Smelter Plume contamination.

OBJECTIVE AND SCOPE OF WORK

At the request of Mercy Housing, PBS conducted shallow soil sampling at the Site in accordance with the July 2019 Tacoma Smelter Plume Model Remedies Guidance. Based on the approximately 4-acre land area, the guidance recommended collecting soil samples from 35 locations. However, as approximately one-third of the Site is occupied by a structure with a basement, PBS collected soil samples from 30 locations.

Per the guidance, a soil sample was collected from the ground surface to 0.5 feet below ground surface (bgs) at each location, with an additional deeper soil sample collected from 0.5 to 1.0 foot bgs at every fourth location (i.e., 25 percent of sampling locations). Additionally, five composite samples were collected from the surface layer of duff within the decision unit. Figure 2 presents the soil sample locations.

CHARACTERIZATION SOIL SAMPLING

On January 22, 2025, a total of 30 discrete soil samples (SS-1 through SS-30) were collected from 30 locations across the Site using hand tools. At each location, a discrete soil sample was collected from the ground surface to 0.5 feet below ground surface (bgs). Additionally, a deeper soil sample was collected from 0.5 to 1.0 foot bgs at every fourth location (i.e., 25 percent of sampling locations). Sample locations were selected to maximize spatial coverage of the Site, as shown in Figure 2. The number of samples collected for analysis was determined in accordance with guidance from the Washington State Department of Ecology.

Soil sample collection began just below any surface cover layer (e.g., grass or gravel). After each soil sampling interval, hand equipment was decontaminated using an Alconox detergent and potable water wash followed by a clean potable water rinse and a final rinse with distilled water. In addition, disposable latex sampling gloves were worn between samples to avoid cross contamination between sample depths and locations.

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[2] "Model Toxics Control Act Regulation and Statute", Washington State Department of Ecology, 2024 Revision, Publication No. 94-06

[3] *"Natural Background Soil Metals Concentrations in Washington State"*, Washington State Department of Ecology, October 1994, Publication No. 94-115

Soil retained for analysis was packed into laboratory-provided containers, labeled and transported on ice under chain of custody documentation to Friedman and Bruya, Inc. in Seattle, an Ecology-accredited analytical laboratory. Samples were analyzed for total arsenic and lead using Environmental Protection Agency (EPA) Method 6020B. Total arsenic and lead results were reported on a dry weight basis.

The soil samples were named as follows; Soil Sample (SS) followed by location designation number, followed by the depth of the collected soil sample in feet (ex; SS-1:0.5).

CHARACTERIZATION DUFF SAMPLING

On January 22, 2025, five composite duff samples were collected from areas with leaf debris in the western areas of the Site, within wooded areas. Each composite duff sample was created by combining material from at least six distinct sample locations.

Disposable nitrile sampling gloves were worn between samples to avoid cross contamination between sample locations. Duff retained for analysis was packed into laboratory-provided containers, labeled and transported on ice under chain of custody documentation to Friedman and Bruya, Inc. in Seattle, an Ecology-accredited analytical laboratory. Samples were analyzed for total arsenic and lead using EPA Method 6020B. Total arsenic and lead results were reported on a dry weight basis.

ANALYTIC RESULTS

Total Arsenic

A total of four (4) out of 30 shallow soil samples collected during the Tacoma Smelter assessment had arsenic concentrations exceeding the applicable MTCA Method A CULs. Total arsenic concentrations in soil ranged from 2.6 mg/kg (SS-21) to 48 mg/kg (SS-2), with an average concentration of 12.59 mg/kg from the surface to 0.5-foot depth horizon. Per MTCA Method A, the CUL for arsenic in the Tacoma Smelter Plume area is an average concentration of 20 mg/kg (Table 1). One shallow soil sample (SS-2:0.5) had a total arsenic concentration of 48 mg/kg, exceeding the 40 mg/kg threshold. Additionally, two deeper samples, 0.5 foot to 1.0 foot and 1.0 foot to 1.5 feet soil samples were collected at the initial SS-2 soil boring location. The analytical results did not indicate any concentrations of arsenic above the MTCA Method A CUL in the deeper samples.

Analytical results indicated that, with the exception of one soil sample (SS-8), which had an arsenic concentration of 21 mg/kg, none of the soil samples collected from the 0.5- to 1.0-foot depth horizon during the Tacoma Smelter Plume assessment exceeded the applicable MTCA Method A CULs. Total arsenic concentrations at this depth ranged from 2.1 mg/kg (SS-20) to 21 mg/kg (SS-8), with an average concentration of 11.9 mg/kg.

To laterally delineate areas of localized arsenic-impacted soil at SS-2, PBS advanced eight (8) additional soil borings, designated SS2N1 through SS2W2. These borings were placed approximately five (5) and ten (10) feet from the original SS-2 location in all four cardinal directions (north [N], east [E], south [S], and west [W]). Soil samples were collected from the surface to 0.5-foot depth horizon, 0.5- to 1-foot depth horizon, and 1.0- to 1.5-foot depth horizon from each boring, and selected samples were analyzed for total arsenic by EPA Method 6020. The January 30, 2025, delineation assessment did not indicate the presence of arsenic at concentrations exceeding the MTCA Method A cleanup level of 20 mg/kg in any of the soil samples collected five (5) feet north, east, south, and west of SS-2. Therefore, the soil samples collected at a 10-foot radius were not further analyzed.

Total Lead
One out of 30 soil samples (SS-20) collected during the Tacoma Smelter assessment had lead concentrations exceeding the applicable MTCA Method A CULs. Total lead concentrations ranged from 5.2 mg/kg (SS-9) to 280 mg/kg (SS-20), with an average lead concentration of 43.17 mg/kg in the 0- to 0.5-foot depth horizon. Analytical results indicated that none of the deeper soil samples had lead concentrations exceeding the applicable MTCA Method A CUL of 250 mg/kg. Total lead concentrations in the 0.5- to 1-foot depth horizon ranged from 3.7 mg/kg (SS-28) to 44 mg/kg (SS-4), with an average concentration of 27.21 mg/kg. Additionally, no individual sample exceeded the 500 mg/kg threshold.

Duff Samples
All analytical results from duff samples collected on-site were reported below MTCA Method A CUL's for arsenic and lead.

Analytical results from soil and duff samples collected on site are summarized in Table 1. Figure 2 depicts the sample locations, and the laboratory report is provided in Attachment 1.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings presented above, PBS offers the following conclusions and recommendations:

- The arithmetic average for arsenic soil concentrations from between ground surface and 0.5 feet bgs of the Site is 12.59 mg/kg, which is below the MTCA Method A Cleanup Level of 20 mg/kg for total arsenic in soil. The arithmetic average for arsenic soil concentrations from the depth horizon of 0.5 foot to one (1) foot is 11.86 mg/kg, which is below the MTCA Method A Cleanup Level. With the exception of one soil sample (SS-2), all soil sample concentrations were below the maximum allowable concentration of 40 mg/kg for arsenic. The arsenic concentration in one individual sample (SS-2:0.5) exceeded this threshold. Subsequently, total arsenic concentrations in the four soil samples collected from the step-out locations (5 feet from the sample with elevated arsenic concentrations) did not exceed the Ecology requirements for the average allowable concentration of 20 mg/kg and single sample concentration of 40 mg/kg.

- The arithmetic average for total lead from between ground surface and 0.5 feet bgs of the Site is 43.17 mg/kg and from the depth 0.5 foot to one (1) foot is 27.21 mg/kg, which are both below the MTCA Method A cleanup Level of 250 mg/kg for total lead in soil. None of the soil sample concentrations exceeded the maximum allowable concentrations of 500 mg/kg for lead.

- Due the presence of localized arsenic concentrations in soil above the Ecology's MTCA Method A soil Cleanup Level for individual soil sample concentration of 40 mg/kg for arsenic in the upper 6 inches of the Site, PBS recommends preparing a soil remedial action plan to address soil sample location above the 40 mg/kg. The remedial action plan will propose a soil mixing model remedy to address the arsenic exceedance under the supervision of Ecology's Voluntary Cleanup Program. Additionally, PBS will prepare a remedial action report summarizing the post-remedial activities and confirmation soil sampling results.

LIMITATIONS

PBS has prepared this report for the exclusive use by Mercy Housing Northwest and its partners and is not to be relied upon by other parties. It is not to be photographed, photocopied, or similarly reproduced in total or in part without the express written consent of the client and PBS.

This study was limited to the tests, locations, and depths as indicated to determine the absence or presence of certain contaminants. The Site may have other contamination that was not characterized by this study. The findings and conclusions of this report are not scientific certainties, but probabilities based on professional judgment concerning the significance of the data gathered during this investigation.

Please feel free to contact me at 206.766.7636 or nasrin.bastami@ApaxCos.com with any questions or comments.

Sincerely,

Michael Andrews

Digitally signed by Nasrin Bastami
Date: 2025.02.26 12:09:21 -08'00'

Michael Andrews
Project Geologist
PBS Engineering and Environmental LLC

Nasrin Bastami
Environmental Practice Lead
PBS Engineering and Environmental LLC

Attachments: Table 1 – Summary of Soil Analytical Results – Total Arsenic and Lead
Figure 1 – Site Vicinity Map
Figure 2 – Site Plan – Soil Characterization
Figure 3 – Site Plan – Step-Out Soil Sample Locations
Appendix A –Analytical Reports

Reviewed by: Tom Mergy LHG

Table 1
Summary of Soil Analytical Results
Mary's Place Burien
12845 Ambaum Blvd SW
Burien, Washington
Project No. 25003448

Result (mg/kg)					
Location Name	**Sample Name**	**Date**	**Depth (feet bgs)**	**Metals[a]**	
				Arsenic	**Lead**
MTCA Method A Cleanup Levels - Unrestricted Land Use[b]				**20**	**250**
SS-1	SS-1:0.5	1/20/2025	surface to 0.5	12	26
	SS-1:1	1/20/2025	0.5 to 1.0	--	--
SS-2	SS-2:0.5	1/20/2025	surface to 0.5	**48**	82
	SS-2:1	1/20/2025	0.5 to 1.0	20	39
	SS-2:1.5	1/30/2025	1.0 to 1.5	4.6	--
	SS2N1:0.5	1/30/2025	surface to 0.5	10	--
	SS2N1:1.0	1/30/2025	0.5 to 1.0	5.8	--
	SS2N1:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2N2:0.5	1/30/2025	surface to 0.5	--	--
	SS2N2:1.0	1/30/2025	0.5 to 1.0	--	--
	SS2N2:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2E1:0.5	1/30/2025	surface to 0.5	12	--
	SS2E1:1.0	1/30/2025	0.5 to 1.0	9.2	--
	SS2E1:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2E2:0.5	1/30/2025	surface to 05	--	--
	SS2E2:1.0	1/30/2025	0.5 to 1.0	--	--
	SS2E2:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2S1:0.5	1/30/2025	surface to 0.5	13	--
	SS2S1:1.0	1/30/2025	0.5 to 1.0	8.4	--
	SS2S1:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2S2:0.5	1/30/2025	surface to 0.5	--	--
	SS2S2:1.0	1/30/2025	0.5 to 1.0	--	--
	SS2S2:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2W1:0.5	1/30/2025	surface to 0.5	19	--
	SS2W1:1.0	1/30/2025	0.5 to 1.0	13	--
	SS2W1:1.5	1/30/2025	1.0 to 1.5	--	--
	SS2W2:0.5	1/30/2025	surface to 0.5	--	--
	SS2W2:1.0	1/30/2025	0.5 to 1.0	--	--
	SS2W2:1.5	1/30/2025	1.0 to 1.5	--	--
SS-3	SS-3:0.5	1/20/2025	surface to 0.5	**40**	70
	SS-3:0.5	1/20/2025	0.5 to 1.0	--	--
SS-4	SS-4:0.5	1/20/2025	surface to 0.5	**31**	97
	SS-4:1	1/20/2025	0.5 to 1.0	19	44
SS-5	SS-5:0.5	1/20/2025	surface to 0.5	15	30
	SS-5:1	1/20/2025	0.5 to 1.0	--	--
SS-6	SS-6:0.5	1/20/2025	surface to 0.5	**30**	120
	SS-6:1	1/20/2025	0.5 to 1.0	--	--
SS-7	SS-7:0.5	1/20/2025	surface to 0.5	**37**	100
	SS-7:1	1/20/2025	0.5 to 1.0	--	--
SS-8	SS-8:0.5	1/20/2025	surface to 0.5	20	50
	SS-8:1	1/20/2025	0.5 to 1.0	**21**	42

Result (mg/kg)					
Location Name	Sample Name	Date	Depth (feet bgs)	Metals[a]	
				Arsenic	Lead
MTCA Method A Cleanup Levels - Unrestricted Land Use[b]				20	250
SS-9	SS-9:0.5	1/20/2025	surface to 0.5	2.7	5.2
	SS-9:1	1/20/2025	0.5 to 1.0	--	--
SS-10	SS-10:0.5	1/20/2025	surface to 0.5	2.8	8.9
	SS-10:1	1/20/2025	0.5 to 1.0	--	--
SS-11	SS-11:0.5	1/20/2025	surface to 0.5	11	25
	SS-11:1	1/20/2025	0.5 to 1.0	--	--
SS-12	SS-12:0.5	1/20/2025	surface to 0.5	12	31
	SS-12:1	1/20/2025	0.5 to 1.0	16	33
SS-13	SS-13:0.5	1/20/2025	surface to 0.5	5.8	14
	SS-13:1	1/20/2025	0.5 to 1.0	--	--
SS-14	SS-14:0.5	1/20/2025	surface to 0.5	3.8	6.6
	SS-14:1	1/20/2025	0.5 to 1.0	--	--
SS-15	SS-15:0.5	1/20/2025	surface to 0.5	4.6	12
	SS-15:1	1/20/2025	0.5 to 1.0	--	--
SS-16	SS-16:0.5	1/20/2025	surface to 0.5	12	28
	SS-16:1	1/20/2025	0.5 to 1.0	9.4	19
SS-17	SS-17:0.5	1/20/2025	surface to 0.5	10	27
	SS-17:1	1/20/2025	0.5 to 1.0	--	--
SS-18	SS-18:0.5	1/20/2025	surface to 0.5	5.6	14
	SS-18:1	1/20/2025	0.5 to 1.0	--	--
SS-19	SS-19:0.5	1/20/2025	surface to 0.5	9.5	26
	SS-19:1	1/20/2025	0.5 to 1.0	--	**--**
SS-20	SS-20:0.5	1/20/2025	surface to 0.5	2.9	**280**
	SS-20:1	1/20/2025	0.5 to 1.0	2.1	19
SS-21	SS-21:0.5	1/20/2025	surface to 0.5	2.6	5.3
	SS-21:1	1/20/2025	0.5 to 1.0	--	--
SS-22	SS-22:0.5	1/20/2025	surface to 0.5	3.3	10
	SS-22:1	1/20/2025	0.5 to 1.0	--	--
SS-23	SS-23:0.5	1/20/2025	surface to 0.5	8.3	16
	SS-23:1	1/20/2025	0.5 to 1.0	--	--
SS-24	SS-24:0.5	1/20/2025	surface to 0.5	6.1	35
	SS-24:1	1/20/2025	0.5 to 1.0	5	18
SS-25	SS-25:0.5	1/20/2025	surface to 0.5	9.2	37
	SS-25:1	1/20/2025	0.5 to 1.0	--	--
SS-26	SS-26:0.5	1/20/2025	surface to 0.5	6.4	24
	SS-26:1	1/20/2025	0.5 to 1.0	--	--
SS-27	SS-27:0.5	1/20/2025	surface to 0.5	8	32
	SS-27:1	1/20/2025	0.5 to 1.0	--	--
SS-28	SS-28:0.5	1/20/2025	surface to 0.5	4.8	19
	SS-28:1	1/20/2025	0.5 to 1.0	2.4	3.7
SS-29	SS-29:0.5	1/20/2025	surface to 0.5	5.3	39
	SS-29:1	1/20/2025	0.5 to 1.0	--	--
SS-30	SS-30:0.5	1/20/2025	surface to 0.5	4.9	25
	SS-30:1	1/20/2025	0.5 to 1.0	--	--

Result (mg/kg)					
Location Name	Sample Name	Date	Depth (feet bgs)	Metals[a]	
				Arsenic	Lead
MTCA Method A Cleanup Levels - Unrestricted Land Use[b]				**20**	**250**
DUFF-1	DUFF-1	1/20/2025	surface	<2	3.9
DUFF-2	DUFF-2	1/20/2025	surface	<1	1.3
DUFF-3	DUFF-3	1/20/2025	surface	<2	<2
DUFF-4	DUFF-4	1/20/2025	surface	2.1	5.7
DUFF-5	DUFF-5	1/20/2025	surface	<2	6.9
Average Concentration for the Site (0- to 0.5 feet depth)				12.59	43.17
Average Concentration for the Site (0.5- to 1.0 feet depth)				11.86	27.21

Notes:

< indicates analyte not detected at or above given laboratory reporting limit

bold indicates detected concentration exceeds adopted criteria

mg/kg - milligrams per kilogram

ft bgs - feet below native ground surface

-- - Sample not analyzed

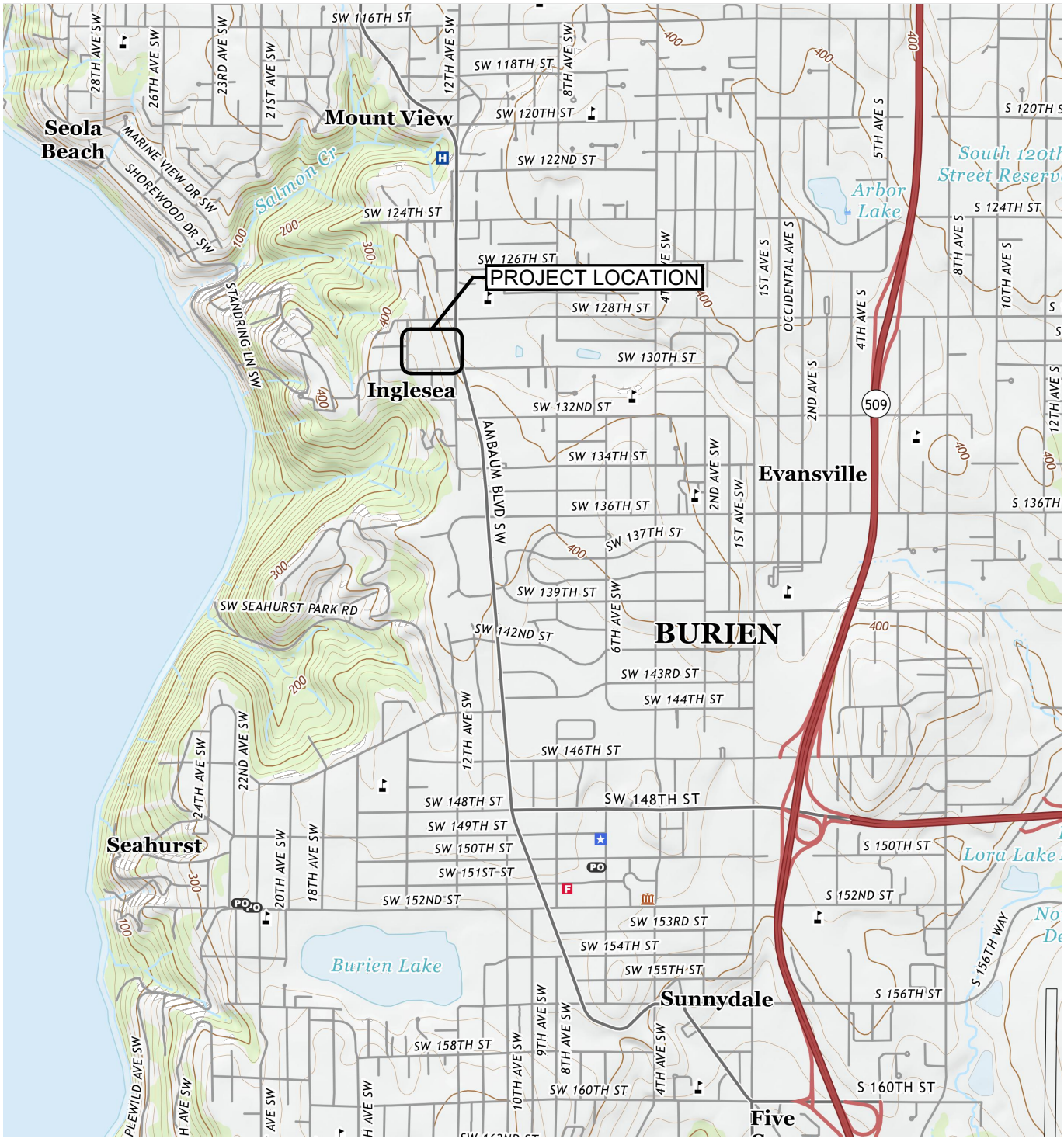
SS - Soil Sample

Footnotes:

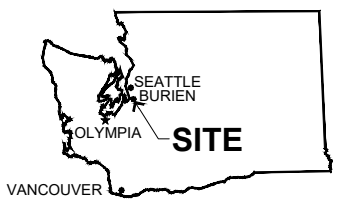
[a] Analysis For Total Metals By Environmental Protection Agency (EPA) Method 6020B

[b] Washington State Department of Ecology Model Toxics Control Act Method A Cleanup Level for Unrestricted Land Use as established in WAC 173-340-900

N, E, S, W Five-foot (5') step-out delineation samples were collected to the north, east, south, and west, respectively, from the SS-2 soil location.



SOURCE: USGS DES MOINES, WA QUADRANGLE 2020.



WASHINGTON

SCALE: 1" = 2,000'

0 1,000' 2,000' 4,000'

PREPARED FOR: MERCY HOUSING NORTHWEST

PBS
AN APEX COMPANY

VICINITY MAP
MARY'S PLACE BURIEN

12845 AMBAUM BOULEVARD SW
BURIEN, WASHINGTON

DEC 2024
25003448

FIGURE
1

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LEGEND

● #	SOIL SAMPLE NUMBER AND LOCATION
△ DUFF-#	DUFF SAMPLE NUMBER AND LOCATION

SCALE: 1" = 140'

0 70' 140' 280'

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PBS AN APEX COMPANY

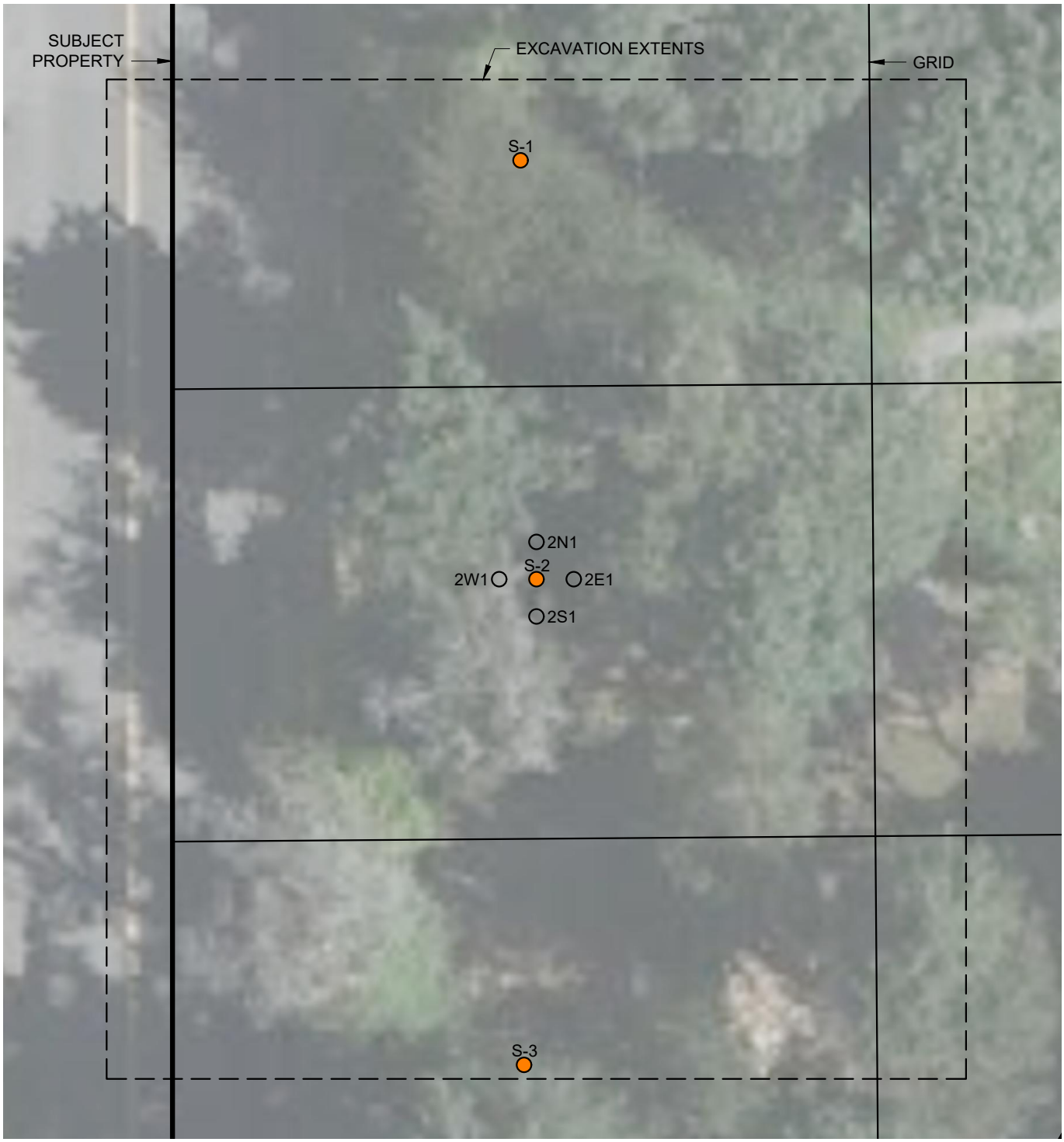
SITE PLAN - SOIL CHARACTERIZATION
MARY'S PLACE BURIEN

12845 AMBAUM BOULEVARD SW
BURIEN, WASHINGTON

FEB 2025
25003448

FIGURE
2

Filename: L:\Projects_DVP\MMER047\25003448\CAD\25003448_0001_FIG_2_soil_characterization.dwg Layout Tab: SITE PLAN User: James Blanco CAD Plot Date/Time: 2/11/2025 10:57:18 AM



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LEGEND

- ●# SOIL SAMPLE LOCATION NUMBER AND LOCATION
- ○# STEP-OUT (APPROXIMATELY 5-FEET HORIZONTALLY) SOIL SAMPLE NUMBER AND LOCATION

N

SCALE: 1" = 20'

0 10' 20' 40'

PREPARED FOR: MERCY HOUSING NORTHWEST

PBS AN APEX COMPANY

SITE PLAN - STEP-OUT SOIL SAMPLING LOCATIONS
MARY'S PLACE BURIEN

12845 AMBAUM BOULEVARD SW
BURIEN, WASHINGTON

FEB 2025
25003448

FIGURE
3

Filename: L:\Projects_DVP\MMER047\25003448\CAD\25003448_0001_FIG_3.dwg Layout Tab: SITE PLAN User: James Blanco CAD Plot Date/Time: 2/11/2025 4:54:56 PM

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

January 28, 2025

Nasrin Bastami, Project Manager
PBS Engineering and Environmental, Inc.
214 E. Galer St, Suite 300
Seattle, WA 98102

Dear Ms Bastami:

Included are the results from the testing of material submitted on January 20, 2025 from the Mary's Place Burien 25003448, F&BI 501242 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Josh Trierweiler
PBS0128R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 20, 2025 by Friedman & Bruya, Inc. from the PBS Engineering and Environmental Mary's Place Burien 25003448, F&BI 501242 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	PBS Engineering and Environmental
501242 -01	Duff-1
501242 -02	Duff-2
501242 -03	Duff-3
501242 -04	Duff-4
501242 -05	Duff-5

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	Duff-1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Mary's Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501242-01
Date Analyzed:	01/21/25	Data File:	501242-01.122
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Lead	3.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	Duff-2	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Mary's Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501242-02
Date Analyzed:	01/21/25	Data File:	501242-02.125
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	1.3

Analysis For Total Metals By EPA Method 6020B

Client ID:	Duff-3	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Mary's Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501242-03
Date Analyzed:	01/21/25	Data File:	501242-03.126
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Lead	<2

Analysis For Total Metals By EPA Method 6020B

Client ID:	Duff-4	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Mary's Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501242-04
Date Analyzed:	01/21/25	Data File:	501242-04.131
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.1
Lead	5.7

Analysis For Total Metals By EPA Method 6020B

Client ID:	Duff-5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Mary's Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501242-05
Date Analyzed:	01/21/25	Data File:	501242-05.132
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Lead	6.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	PBS Engineering and Environmental
Date Received:	Not Applicable	Project:	Mary's Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	I5-54 mb
Date Analyzed:	01/21/25	Data File:	I5-54 mb.101
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1

Date of Report: 01/28/25
Date Received: 01/20/25
Project: Mary's Place Burien 25003448, F&BI 501242

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

Laboratory Code: 501230-05 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	97	95	75-125	2
Lead	mg/kg (ppm)	50	5.77	98	97	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	101	80-120
Lead	mg/kg (ppm)	50	107	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, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. 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 between the method detection limit and the lowest calibration point. 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

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.

501242

SAMPLE CHAIN OF CUSTODY

01/20/25 MI

Page # 1 of 1

Report To Nasrin Bastami

Company PBS Engineering

Address 214 E Colum St Suite 300

City, State, ZIP Seattle WA 98102

Phone 206.766.7673 Email nasrin.bastami@pbsusa.com

SAMPLERS (signature)

PROJECT NAME: Mary's Place Burien

PO # 25003448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb/AS					Notes
DUFF-1	01	1/20/2025	12:58	Duff	1							X					
DUFF-2	02	↓	13:15	↓	↓							X					
DUFF-3	03		13:23									X					
DUFF-4	04		13:40									X					
DUFF-5	05		12:50									X					

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		PBS	1/20/25	1426
Received by:	Matt Truong	FXB	1/20/25	1426
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

FORMS\COC\COC.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501242 CLIENT PBS INITIALS/ DATE: AP 01/20/25

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☑ YES ☐ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: AP 01/20/25
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

January 31, 2025

Nasrin Bastami, Project Manager
PBS Engineering and Environmental, Inc.
214 E. Galer St, Suite 300
Seattle, WA 98102

Dear Ms Bastami:

Included are the additional results from the testing of material submitted on January 20, 2025 from the Marys Place Burien 25003448, F&BI 501243 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: michael.andrews@pbsusa.com
PBS0131R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 20, 2025 by Friedman & Bruya, Inc. from the PBS Engineering and Environmental Marys Place Burien 25003448, F&BI 501243 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	PBS Engineering and Environmental
501243 -01	SS-1:0.5
501243 -02	SS-1:1
501243 -03	SS-2:0.5
501243 -04	SS-2:1
501243 -05	SS-3:0.5
501243 -06	SS-3:1
501243 -07	SS-4:0.5
501243 -08	SS-4:1
501243 -09	SS-5:0.5
501243 -10	SS-5:1
501243 -11	SS-6:0.5
501243 -12	SS-6:1
501243 -13	SS-7:0.5
501243 -14	SS-7:1
501243 -15	SS-8:0.5
501243 -16	SS-8:1
501243 -17	SS-9:0.5
501243 -18	SS-9:1
501243 -19	SS-10:0.5
501243 -20	SS-10:1
501243 -21	SS-11:0.5
501243 -22	SS-11:1
501243 -23	SS-12:0.5
501243 -24	SS-12:1
501243 -25	SS-13:0.5
501243 -26	SS-13:1
501243 -27	SS-14:0.5
501243 -28	SS-14:1
501243 -29	SS-15:0.5
501243 -30	SS-15:1
501243 -31	SS-16:0.5
501243 -32	SS-16:1
501243 -33	SS-17:0.5
501243 -34	SS-17:1
501243 -35	SS-18:0.5
501243 -36	SS-18:1

CASE NARRATIVE (continued)

Laboratory ID	PBS Engineering and Environmental
501243 -37	SS-19:0.5
501243 -38	SS-19:1
501243 -39	SS-20:0.5
501243 -40	SS-20:1
501243 -41	SS-21-0.5
501243 -42	SS-21:1
501243 -43	SS-22:0.5
501243 -44	SS-22:1
501243 -45	SS-23:0.5
501243 -46	SS-23:1
501243 -47	SS-24:0.5
501243 -48	SS-24:1
501243 -49	SS-25:0.5
501243 -50	SS-25:1
501243 -51	SS-26:0.5
501243 -52	SS-26:1
501243 -53	SS-27:0.5
501243 -54	SS-27:1
501243 -55	SS-28:0.5
501243 -56	SS-28:1
501243 -57	SS-29:0.5
501243 -58	SS-29:1
501243 -59	SS-30:0.5
501243 -60	SS-30:1

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-2:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/29/25	Lab ID:	501243-04 x5
Date Analyzed:	01/29/25	Data File:	501243-04 x5.069
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	20

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	PBS Engineering and Environmental
Date Received:	Not Applicable	Project:	Marys Place Burien 25003448
Date Extracted:	01/29/25	Lab ID:	I5-82 mb2
Date Analyzed:	01/29/25	Data File:	I5-82 mb2.060
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1

Date of Report: 01/31/25
Date Received: 01/20/25
Project: Marys Place Burien 25003448, F&BI 501243

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

Laboratory Code: 501376-01 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	91	96	75-125	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	108	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, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. 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 between the method detection limit and the lowest calibration point. 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

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.

501243

SAMPLE CHA... OF CUSTODY

01/20/25 MH

Page # 1 of 6

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Marys Place Burien

PO #: 2500 3448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb/As	As only				Notes
SS-1:0.5	01	1/20/25	1259	S	1							X					
SS-1:1	02	↓	1301	↓	↓							X					HOLD
SS-2:0.5	03		1304									X					
SS-2:1	04		1305									X	A				~~HOLD~~
SS-3:0.5	05		1307									X					
SS-3:1	06		1308									X					HOLD
SS-4:0.5	07		1310									X					
SS-4:1	08		1311									X					
SS-5:0.5	09		1313									X					
SS-5:1	10	↓	1314	↓	↓							X					HOLD

A-24 hr TAT per MA 01/28/25 ME

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/20/25	1426
Received by:	Nhut Truong	F&B	1/20/25	14:26
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 M4

Page # 2 of 6

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Marys Place Burien

PO # 25007448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	PB/AS					Notes
SS-6:0.5	11	1/20/25	1253	S	1							X					
SS-6:1	12	"	1254	"	"							X					HOLD
SS-7:0.5	13	"	1334	"	"							X					
SS-7:1	14	"	1336	"	"							X					HOLD
SS-8:0.5	15	"	1326	"	"							X					
SS-8:1	16	"	1327	"	"							X					
SS-9:0.5	17	"	1324	"	"							X					
SS-9:1	18	"	1325	"	"							X					HOLD
SS-10:0.5	19	"	1319	"	"							X					
SS-10:1	20	"	1320	"	"							X					HOLD

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/20/25	1426
Received by:	Nhut Truong	F&B	1/20/25	1426
Relinquished by:		Samples received at 2 oC		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY 01/20/25 MY

Page # 3 of 6

Report To Nasrin Bastami

Company PBS Engineering

Address 214 E Galer St, Suite 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7673 Email nasrin.bastami@pbsusa.com

SAMPLERS (signature)

PROJECT NAME: Mary's Place Burien

PO # 25003448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb / As					Notes
SS-11:0.5	21	1/20/2025	12:42	Soil	1							X					
SS-11:1	22		12:43														Hold
SS-12:0.5	23		12:38									X					
SS-12:1	24		12:34									X					
SS-13:0.5	25		12:34									X					
SS-13:1	26		12:36														Hold
SS-14:0.5	27		12:30									X					
SS-14:1	28		12:31														Hold
SS-15:0.5	29		12:25									X					
SS-15:1	30		12:26														Hold

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/20/25	1426
Received by:	Mint Truong	F&B	1/20/25	1426
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Report To Nasrin Bastami

Company PBS Engineering

Address 214 E Galer St, Suite 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7673 Email nasrin.bastami@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Mary's Place Burien

PO # 25003448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME

Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb /As					Notes
SS-16:0.5	31	1/20/2025	12:06	Soil	1							X					
SS-16:1	32		12:08									X					
~~SS-17~~ SS-17:0.5	33		12:01									X					
SS-17:1	34		12:02														Hold
SS-18:0.5	35		11:58									X					
SS-18:1	36		11:59														Hold
SS-19:0.5	37		11:53									X					
SS-19:1	38		11:55														Hold
SS-20:0.5	39		11:48									X					
SS-20:1	40		11:49									X					

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		PBS	1/20/25	1426
Received by:	Matt Truong	F&B	1/20/25	1426
Relinquished by:		Sample received at 2 °C		
Received by:				

Friedman & Bruya, Inc.

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Page # 5 of 6

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (signature)

PROJECT NAME: Marys Place Burien

PO # 2500 3448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME

X Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb/As					Notes
						ANALYSES REQUESTED											
SS-21:0.5	41	1/20/25	1145	S	1							X					
SS-21:1	42		1146									X					HOLD
SS-22:0.5	43		1142									X					
SS-22:1	44		1143									X					HOLD
SS-23:0.5	45		1137									X					
SS-23:1	46		1139									X					HOLD
SS-24:0.5	47		1106									X					
SS-24:1	48		1108									X					
SS-25:0.5	49		1132									X					
SS-25:1	50		1134									X					HOLD

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		PBS	1/20/25	1426
Received by:	Mhut Truong	F&B	1/20/25	1426
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Page # 6 of 6

Report To Nasrin Bastami
Company PBS
Address 214 E Galer St, Ste 300
City, State, ZIP Seattle, WA 98102
Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Marys Place Burien
PO #: 2500 3448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
XStandard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	26/Arc					Notes
SS-26:0.5	51	1/20/25	1128	S	1							X					
SS-26:1	52	"	1129	"	"							X					HOLD
SS-27:0.5	53		1124									X					
SS-27:1	54		1125									X					HOLD
SS-28:0.5	55		1121									X					
SS-28:1	56		1122									X					
SS-29:0.5	57		1112									X					
SS-29:1	58		1115									X					HOLD
SS-30:0.5	59		1117									X					
SS 30:1	60	↓	1119	↓	↓							X					HOLD

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:			PBS	1/20/25	1426
Received by:		Nhut Truong	F&B	1/20/25	14:26
Relinquished by:			Samples received at 2 °C		
Received by:					

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

FORMS\COC\COC.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501243 CLIENT PBS INITIALS/ DATE: AP 01/20/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: AP 01/20/25
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No		☐ Not on COC/label
Date Sampled	☒ Yes ☐ No		☐ Not on COC/label
Time Sampled	☐ Yes ☒ No	(See below)	☐ Not on COC/label
# of Containers	☒ Yes ☐ No		
Relinquished	☒ Yes ☐ No		
Requested analysis	☒ Yes ☐ On Hold		

Other comments (use a separate page if needed)
Time on label 13:13(-07), 13:14(-08), 12:43(21) and 12:42(22)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

January 28, 2025

Nasrin Bastami, Project Manager
PBS Engineering and Environmental, Inc.
214 E. Galer St, Suite 300
Seattle, WA 98102

Dear Ms Bastami:

Included are the results from the testing of material submitted on January 20, 2025 from the Marys Place Burien 25003448, F&BI 501243 project. There are 45 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: michael.andrews@pbsusa.com
PBS0128R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 20, 2025 by Friedman & Bruya, Inc. from the PBS Engineering and Environmental Marys Place Burien 25003448, F&BI 501243 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	PBS Engineering and Environmental
501243 -01	SS-1:0.5
501243 -02	SS-1:1
501243 -03	SS-2:0.5
501243 -04	SS-2:1
501243 -05	SS-3:0.5
501243 -06	SS-3:1
501243 -07	SS-4:0.5
501243 -08	SS-4:1
501243 -09	SS-5:0.5
501243 -10	SS-5:1
501243 -11	SS-6:0.5
501243 -12	SS-6:1
501243 -13	SS-7:0.5
501243 -14	SS-7:1
501243 -15	SS-8:0.5
501243 -16	SS-8:1
501243 -17	SS-9:0.5
501243 -18	SS-9:1
501243 -19	SS-10:0.5
501243 -20	SS-10:1
501243 -21	SS-11:0.5
501243 -22	SS-11:1
501243 -23	SS-12:0.5
501243 -24	SS-12:1
501243 -25	SS-13:0.5
501243 -26	SS-13:1
501243 -27	SS-14:0.5
501243 -28	SS-14:1
501243 -29	SS-15:0.5
501243 -30	SS-15:1
501243 -31	SS-16:0.5
501243 -32	SS-16:1
501243 -33	SS-17:0.5
501243 -34	SS-17:1
501243 -35	SS-18:0.5
501243 -36	SS-18:1

CASE NARRATIVE (continued)

Laboratory ID	PBS Engineering and Environmental
501243 -37	SS-19:0.5
501243 -38	SS-19:1
501243 -39	SS-20:0.5
501243 -40	SS-20:1
501243 -41	SS-21-0.5
501243 -42	SS-21:1
501243 -43	SS-22:0.5
501243 -44	SS-22:1
501243 -45	SS-23:0.5
501243 -46	SS-23:1
501243 -47	SS-24:0.5
501243 -48	SS-24:1
501243 -49	SS-25:0.5
501243 -50	SS-25:1
501243 -51	SS-26:0.5
501243 -52	SS-26:1
501243 -53	SS-27:0.5
501243 -54	SS-27:1
501243 -55	SS-28:0.5
501243 -56	SS-28:1
501243 -57	SS-29:0.5
501243 -58	SS-29:1
501243 -59	SS-30:0.5
501243 -60	SS-30:1

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-1:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-01
Date Analyzed:	01/21/25	Data File:	501243-01.173
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12
Lead	26

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-2:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-03
Date Analyzed:	01/21/25	Data File:	501243-03.176
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	48
Lead	82

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-3:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-05
Date Analyzed:	01/21/25	Data File:	501243-05.177
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	40
Lead	73

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-4:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-07
Date Analyzed:	01/21/25	Data File:	501243-07.178
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	31
Lead	97

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-4:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-08
Date Analyzed:	01/21/25	Data File:	501243-08.179
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	19
Lead	44

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-5:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-09
Date Analyzed:	01/21/25	Data File:	501243-09.202
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	15
Lead	30

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-6:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-11
Date Analyzed:	01/21/25	Data File:	501243-11.206
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	30
Lead	120

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-7:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-13
Date Analyzed:	01/21/25	Data File:	501243-13.207
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	37
Lead	100

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-8:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-15
Date Analyzed:	01/21/25	Data File:	501243-15.208
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	20
Lead	50

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-8:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-16
Date Analyzed:	01/21/25	Data File:	501243-16.209
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	21
Lead	42

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-9:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-17
Date Analyzed:	01/21/25	Data File:	501243-17.210
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.7
Lead	5.2

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-10:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-19
Date Analyzed:	01/21/25	Data File:	501243-19.211
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.8
Lead	8.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-11:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-21
Date Analyzed:	01/21/25	Data File:	501243-21.212
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	11
Lead	25

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-12:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-23
Date Analyzed:	01/21/25	Data File:	501243-23.213
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12
Lead	31

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-12:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-24
Date Analyzed:	01/21/25	Data File:	501243-24.214
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	16
Lead	33

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-13:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-25
Date Analyzed:	01/21/25	Data File:	501243-25.215
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.8
Lead	14

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-14:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-27
Date Analyzed:	01/21/25	Data File:	501243-27.218
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.8
Lead	6.6

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-15:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-29
Date Analyzed:	01/21/25	Data File:	501243-29.219
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.6
Lead	12

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-16:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-31
Date Analyzed:	01/21/25	Data File:	501243-31.220
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12
Lead	28

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-16:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-32
Date Analyzed:	01/21/25	Data File:	501243-32.221
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.4
Lead	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-17:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-33
Date Analyzed:	01/21/25	Data File:	501243-33.225
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	10
Lead	27

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-18:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-35
Date Analyzed:	01/21/25	Data File:	501243-35.231
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.6
Lead	14

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-19:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-37
Date Analyzed:	01/21/25	Data File:	501243-37.232
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.5
Lead	26

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-20:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-39
Date Analyzed:	01/21/25	Data File:	501243-39.233
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.9

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-20:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-39 x25
Date Analyzed:	01/22/25	Data File:	501243-39 x25.081
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	280

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-20:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-40
Date Analyzed:	01/21/25	Data File:	501243-40.234
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.1
Lead	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-21-0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-41
Date Analyzed:	01/21/25	Data File:	501243-41.235
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.6
Lead	5.3

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-22:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-43
Date Analyzed:	01/21/25	Data File:	501243-43.236
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.3
Lead	10

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-23:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-45
Date Analyzed:	01/21/25	Data File:	501243-45.237
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.3
Lead	16

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-24:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-47
Date Analyzed:	01/21/25	Data File:	501243-47.238
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.1
Lead	35

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-24:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-48
Date Analyzed:	01/21/25	Data File:	501243-48.239
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.0
Lead	18

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-25:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-49
Date Analyzed:	01/21/25	Data File:	501243-49.240
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.2
Lead	37

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-26:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-51
Date Analyzed:	01/21/25	Data File:	501243-51.247
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.4
Lead	24

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-27:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-53
Date Analyzed:	01/21/25	Data File:	501243-53.248
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.0
Lead	32

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-28:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-55
Date Analyzed:	01/21/25	Data File:	501243-55.249
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.8
Lead	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-28:1	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-56
Date Analyzed:	01/21/25	Data File:	501243-56.250
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.4
Lead	3.7

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-29:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-57
Date Analyzed:	01/21/25	Data File:	501243-57.251
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.3
Lead	39

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-30:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/20/25	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	501243-59
Date Analyzed:	01/21/25	Data File:	501243-59.252
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.9
Lead	25

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	PBS Engineering and Environmental
Date Received:	Not Applicable	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	I5-56 mb
Date Analyzed:	01/21/25	Data File:	I5-56 mb.127
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	PBS Engineering and Environmental
Date Received:	Not Applicable	Project:	Marys Place Burien 25003448
Date Extracted:	01/21/25	Lab ID:	I5-57 mb
Date Analyzed:	01/21/25	Data File:	I5-57 mb.129
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Lead	<1

Date of Report: 01/28/25
Date Received: 01/20/25
Project: Marys Place Burien 25003448, F&BI 501243

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

Laboratory Code: 501243-01 (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	9.73	77 b	83 b	75-125	7 b
Lead	mg/kg (ppm)	50	20.8	97 b	101 b	75-125	4 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	101	80-120
Lead	mg/kg (ppm)	50	101	80-120

Date of Report: 01/28/25
Date Received: 01/20/25
Project: Marys Place Burien 25003448, F&BI 501243

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

Laboratory Code: 501243-33 (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	8.45	81 b	91 b	75-125	12 b
Lead	mg/kg (ppm)	50	22.1	145 b	162 b	75-125	11 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	100	80-120
Lead	mg/kg (ppm)	50	102	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, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. 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 between the method detection limit and the lowest calibration point. 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

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.

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Page # 1 of 6

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Marys Place Burien

PO #: 2500 3448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME

X Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb/As					Notes
SS-1:0.5	01	1/20/25	1259	S	1							X					
SS-1:1	02	↓	1301	↓	↓							X					HOLD
SS-2:0.5	03		1304									X					
SS-2:1	04		1305									X					HOLD
SS-3:0.5	05		1307									X					
SS-3:1	06		1308									X					HOLD
SS-4:0.5	07		1310									X					
SS-4:1	08		1311									X					
SS-5:0.5	09		1313									X					
SS-5:1	10	↓	1314	↓	↓							X					HOLD

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/20/25	1426
Received by:	Nhut Truong	F&B	1/20/25	14:26
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 M4

Page # 2 of 6

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Marys Place Burien

PO # 25007448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	PB/AS					Notes
SS-6:0.5	11	1/20/25	1253	S	1							X					
SS-6:1	12	"	1254	"	"							X					HOLD
SS-7:0.5	13	"	1334	"	"							X					
SS-7:1	14	"	1336	"	"							X					HOLD
SS-8:0.5	15	"	1326	"	"							X					
SS-8:1	16	"	1327	"	"							X					
SS-9:0.5	17	"	1324	"	"							X					
SS-9:1	18	"	1325	"	"							X					HOLD
SS-10:0.5	19	"	1319	"	"							X					
SS-10:1	20	"	1320	"	"							X					HOLD

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/20/25	1426
Received by:	Nhut Truong	F&B	1/20/25	1426
Relinquished by:		Samples received at 2 oC		
Received by:				

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5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

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SAMPLE CHAIN OF CUSTODY 01/20/25 MY

Page # 3 of 6

Report To Nasrin Bastami

Company PBS Engineering

Address 214 E Galer St, Suite 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7673 Email nasrin.bastami@pbsusa.com

SAMPLERS (signature)

PROJECT NAME: Mary's Place Burien

PO # 25003448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb / As					Notes
SS-11:0.5	21	1/20/2025	12:42	Soil	1							X					
SS-11:1	22		12:43														Hold
SS-12:0.5	23		12:38									X					
SS-12:1	24		12:34									X					
SS-13:0.5	25		12:34									X					
SS-13:1	26		12:36														Hold
SS-14:0.5	27		12:30									X					
SS-14:1	28		12:31														Hold
SS-15:0.5	29		12:25									X					
SS-15:1	30		12:26														Hold

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/20/25	1426
Received by:	Mint Truong	F&B	1/20/25	1426
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Report To Nasrin Bastami

Company PBS Engineering

Address 214 E Galer St, Suite 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7673 Email nasrin.bastami@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Mary's Place Burien

PO # 25003448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME

Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb /As					Notes
SS-16:0.5	31	1/20/2025	12:06	Soil	1							X					
SS-16:1	32		12:08									X					
~~SS-17~~ SS-17:0.5	33		12:01									X					
SS-17:1	34		12:02														Hold
SS-18:0.5	35		11:58									X					
SS-18:1	36		11:59														Hold
SS-19:0.5	37		11:53									X					
SS-19:1	38		11:55														Hold
SS-20:0.5	39		11:48									X					
SS-20:1	40		11:49									X					

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		PBS	1/20/25	1426
Received by:	Matt Truong	F&B	1/20/25	1426
Relinquished by:		Sample received at 2 °C		
Received by:				

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5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Page # 5 of 6

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (signature)

PROJECT NAME: Marys Place Burien

PO # 2500 3448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME

X Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb/As					Notes
						ANALYSES REQUESTED											
SS-21:0.5	41	1/20/25	1145	S	1							X					
SS-21:1	42		1146									X					HOLD
SS-22:0.5	43		1142									X					
SS-22:1	44		1143									X					HOLD
SS-23:0.5	45		1137									X					
SS-23:1	46		1139									X					HOLD
SS-24:0.5	47		1106									X					
SS-24:1	48		1108									X					
SS-25:0.5	49		1132									X					
SS-25:1	50		1134									X					HOLD

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		PBS	1/20/25	1426
Received by:	Mhut Truong	F&B	1/20/25	1426
Relinquished by:		Samples received at 2 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501243

SAMPLE CHAIN OF CUSTODY

01/20/25 MH

Page # 6 of 6

Report To Nasrin Bastami
Company PBS
Address 214 E Galer St, Ste 300
City, State, ZIP Seattle, WA 98102
Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; michael.andrews@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Marys Place Burien
PO #: 2500 3448

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
XStandard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	26/Arc					Notes
SS-26:0.5	51	1/20/25	1128	S	1							X					
SS-26:1	52	"	1129	"	"							X					HOLD
SS-27:0.5	53		1124									X					
SS-27:1	54		1125									X					HOLD
SS-28:0.5	55		1121									X					
SS-28:1	56		1122									X					
SS-29:0.5	57		1112									X					
SS-29:1	58		1115									X					HOLD
SS-30:0.5	59		1117									X					
SS 30:1	60	↓	1119	↓	↓							X					HOLD

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:			PBS	1/20/25	1426
Received by:		Nhut Truong	F&B	1/20/25	14:26
Relinquished by:			Samples received at 2 °C		
Received by:					

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

FORMS\COC\COC.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501243 CLIENT PBS INITIALS/ DATE: AP 01/20/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 2 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: AP 01/20/25
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☐ YES ☒ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No		☐ Not on COC/label
Date Sampled	☒ Yes ☐ No		☐ Not on COC/label
Time Sampled	☐ Yes ☒ No	(See below)	☐ Not on COC/label
# of Containers	☒ Yes ☐ No		
Relinquished	☒ Yes ☐ No		
Requested analysis	☒ Yes ☐ On Hold		

Other comments (use a separate page if needed)
Time on label 13:13(-07), 13:14(-08), 12:43(21) and 12:42(22)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

February 7, 2025

Nasrin Bastami, Project Manager
PBS Engineering and Environmental, Inc.
214 E. Galer St, Suite 300
Seattle, WA 98102

Dear Ms Bastami:

Included are the results from the testing of material submitted on January 30, 2025 from the Mercy Housing (Mary's Place) 25003448 Task 3, F&BI 501435 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Josh Trierweiler
PBS0207R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 30, 2025 by Friedman & Bruya, Inc. from the PBS Engineering and Environmental Mercy Housing (Mary's Place) 25003448 Task 3, F&BI 501435 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	PBS Engineering and Environmental
501435 -01	SS-2:1.5
501435 -02	SS2N1:0.5
501435 -03	SS2N1:1.0
501435 -04	SS2N1:1.5
501435 -05	SS2N2:0.5
501435 -06	SS2N2:1.0
501435 -07	SS2N2:1.5
501435 -08	SS2E1:0.5
501435 -09	SS2E1:1.0
501435 -10	SS2E1:1.5
501435 -11	SS2E2:0.5
501435 -12	SS2E2:1.0
501435 -13	SS2E2:1.5
501435 -14	SS2S1:0.5
501435 -15	SS2S1:1.0
501435 -16	SS2S1:1.5
501435 -17	SS2S2:0.5
501435 -18	SS2S2:1.0
501435 -19	SS2S2:1.5
501435 -20	SS2W1:0.5
501435 -21	SS2W1:1.0
501435 -22	SS2W1:1.5
501435 -23	SS2W2:0.5
501435 -24	SS2W2:1.0
501435 -25	SS2W2:1.5

The 6020B arsenic calibration standard exceeded the acceptance criteria. The metal was not detected, therefore this did not represent an out of control condition, and were qualified with a "k" qualifier.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS-2:1.5	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-01
Date Analyzed:	02/03/25	Data File:	501435-01.130
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.6

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2N1:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-02
Date Analyzed:	02/03/25	Data File:	501435-02.131
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	10

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2N1:1.0	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-03
Date Analyzed:	02/03/25	Data File:	501435-03.132
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.8

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2E1:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-08
Date Analyzed:	02/03/25	Data File:	501435-08.133
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2E1:1.0	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-09
Date Analyzed:	02/03/25	Data File:	501435-09.134
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	9.2

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2S1:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-14
Date Analyzed:	02/03/25	Data File:	501435-14.138
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	13

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2S1:1.0	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-15
Date Analyzed:	02/03/25	Data File:	501435-15.139
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.4

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2W1:0.5	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-20
Date Analyzed:	02/03/25	Data File:	501435-20.140
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	19

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2W1:1.0	Client:	PBS Engineering and Environmental
Date Received:	01/30/25	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	501435-21
Date Analyzed:	02/03/25	Data File:	501435-21.141
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	13

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	PBS Engineering and Environmental
Date Received:	Not Applicable	Project:	Mercy Housing (Mary's Place)
Date Extracted:	01/31/25	Lab ID:	I5-93 mb
Date Analyzed:	01/31/25	Data File:	I5-93 mb.129
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1 k

Date of Report: 02/07/25
Date Received: 01/30/25
Project: Mercy Housing (Mary's Place) 25003448 Task 3, F&BI 501435

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

Laboratory Code: 501435-01 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	90	101	75-125	12

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	100	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, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. 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 between the method detection limit and the lowest calibration point. 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.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

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.

501435

SAMPLE CHAIN OF CUSTODY

01/30/25 MJ

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; josh.trierweiler@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Mercy Housing (Mary's Place)

PO #: 2500344 8 task 3

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME

X Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb	As				Notes
SS-2:1.5	01	1/30/25	1423	S	1							X	X				
SS2N1-0.5	02		1430										X				
SS2N1-1.0	03		1430										X				
SS2N1-1.5	04		1430										X				HOLD
SS2N2-0.5	05		1440										X				HOLD
SS2N2-1.0	06		1440										X				HOLD
SS2N2-1.5	07		1440										X				HOLD
SS2E1-0.5	08		1450										X				
SS2E1-1.0	09		1450										X				
SS2E1-1.5	10	↓	1450	↓	↓								X				HOLD

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/30/25	1605
Received by:	Anh Phan	FBI	01/30/25	16:05
Relinquished by:		Samples received at 0 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282

501435

SAMPLE CHAIN OF CUSTODY

01/30/25 M3

Report To Nasrin Bastami
Company PBS
Address 214 E Galer St, Ste 300
City, State, ZIP Seattle, WA 98102
Phone 206.766.7636 Email nasrin.bastami@pbsusa.com ; josh.trierweiler@pbsusa.com

SAMPLERS (signature)

PROJECT NAME: Mercy Housing (Mary's Place)
PO#: 250034448 task 3

REMARKS
Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb	As				Notes
SS2E2 - 0.5	11	1/30/25	1455	S	1								X				HOLD
SS2E2 - 1.0	12	"	1455	"	"								X				HOLD
SS2E2 - 1.5	13	"	1455	"	"								X				HOLD
SS2S1 - 0.5	14	"	1500	"	"								X				
SS2S1 - 1.0	15	"	1500	"	"								X				
SS2S1 - 1.5	16	"	1500	"	"								X				HOLD
SS2S2 - 0.5	17	"	1505	"	"								X				HOLD
SS2S2 - 1.0	18	"	1505	"	"								X				HOLD
SS2S2 - 1.5	19	"	1505	"	"								X				HOLD
SS2W1 - 0.5	20	"	1515	"	"								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/30/25	1605
Received by:	Anh Phan	FBI	01/30/25	16:05
Relinquished by:		Samples received at 0 °C		
Received by:				

Friedman & Bruya, Inc.
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Seattle, WA 98108
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501435

SAMPLE CHA OF CUSTODY 01/30/25 M3

Page # 3 of 3

Report To Nasrin Bastami

Company PBS

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7636 Email nasrin.bastami@pbsusa.com; josh.trieweiler@pbsusa.com

SAMPLERS (*signature*)

PROJECT NAME: Mercy Housing (Mary's Place)

PO # 2500B448 task 3

REMARKS

INVOICE TO

Project Specific RLs - Yes / No

TURNAROUND TIME
- X Standard Turnaround
- RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Archive Samples
- Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Pb	As				Notes
SS2W1-1.0	21	1/30/25	1515	S	1								X				
SS2W1-1.5	22	↓	1515	↓	↓								X				HOLD
SS2W2-0.5	23		1525										X				HOLD
SS2W2-1.0	24		1525										X				HOLD
SS2W2-1.5	25		1525										X				HOLD

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	JT	PBS	1/30/25	1605
Received by:	Minh Phan	FBI	01/30/25	16:05
Relinquished by:		Samples received at 0 °C		
Received by:				

Friedman & Bruya, Inc.
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Seattle, WA 98108
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SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501435 CLIENT PBS INITIALS/ DATE: AP 01/30/25

If custody seals are present on cooler, are they intact? ☒ NA ☐ YES ☐ NO

Cooler/Sample temperature 0 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☒ YES ☐ NO

How did samples arrive?
☒ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ Date: AP 01/31/25
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0 days

Are the samples clearly identified? (explain "no" answer below) ☒ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☒ YES ☐ NO

Were appropriate sample containers used? ☒ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☒ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☒ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No	☐ Not on COC/label
Date Sampled	☒ Yes ☐ No	☐ Not on COC/label
Time Sampled	☒ Yes ☐ No	☐ Not on COC/label
# of Containers	☒ Yes ☐ No	
Relinquished	☒ Yes ☐ No	
Requested analysis	☒ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____