



SoundEarth Strategies, Inc.
1011 SW Klickitat Way, Suite 212
Seattle, Washington 98134

April 1, 2025

Mr. Wes Giesbrecht
Atlin Investments
3960 92nd Place Southeast
Mercer Island, Washington 98040

SUBJECT: ARSENIC IN SOIL CLEANUP ACTION
Saintfield Property
7414 78th Avenue Southeast
Project Number: 1673-001

Dear Mr. Giesbrecht:

Sound Earth Strategies, Inc. (SoundEarth) has prepared this letter report on behalf of Atlin Investments to document the results of a cleanup action completed at the Saintfield Property located at 7414 78th Avenue Southeast in Mercer Island, Washington (the Property: Figure 1) on February 13, 2025, and March 5, 2025. The purpose of the cleanup action was to remove and properly dispose of an isolated pocket of near-surface soil with arsenic concentrations exceeding the applicable Washington State Model Toxics Control Act (MTCA) Method A cleanup level.

BACKGROUND

The Property consists of one tax parcel (King County Parcel No. 252404-9075) that covers approximately 68,825 square-feet (1.58 acres) of land (Figure 2) and is currently in the final stages of mass grading for redevelopment into four residential lots. A release of arsenic to near-surface soil exceeding the applicable MTCA Method A cleanup level was identified during a recent Tacoma Smelter Plume (TSP) Assessment of the Property by others (Terra Associates, Inc. [Terra] 2023). Locations of soil samples collected by Terra in two evaluation areas (Decision Units DU A and DU B) are shown on Figure 2. Terra's complete report is presented in Attachment A. The Washington State Department of Ecology (Ecology) reviewed the TSP Assessment and concluded that no soil remediation for contamination associated with the TSP was needed for the Property, but recommended the arsenic exceedance documented at Terra sample location A-9 (81 milligrams per kilogram [mg/kg]) be reported to Ecology's Environmental Report Tracking System (Ecology 2024; Attachment A). SoundEarth understands the City of Mercer Island required the arsenic exceedance to be remediated to below the MTCA Method A cleanup level prior to final Property redevelopment.

REMEDIAL EXCAVATION

On February 13, 2025, under the observation of a SoundEarth geologist, Lawson and Sons, LLC excavated 22.84 tons of soil at the location of Terra sample location A-9 and disposed of the soil at a regulated waste facility. The truck ticket for disposal is provided as Attachment B. The remedial excavation measured approximately 15 feet by 20 feet by 1.5 feet below ground surface (bgs). The soil consisted of brown silty sand with gravel (weathered glacial till). No visual indication of contamination was observed within the

excavation. Based on the results of prior sampling by others and field screening, SoundEarth collected soil samples in the excavation area from a rough grid of eight sampling locations around the location of Sample A-9 (Figure 3) and submitted the samples to OnSite Environmental, Inc of Redmond, Washington (OnSite) for laboratory analysis of total arsenic by US Environmental protection Agency (EPA) Method 6010D.

Soil samples were collected in laboratory-prepared glassware, labeled, placed on ice in a cooler, and transported to Onsite under standard chain-of-custody protocols for laboratory analysis.

Remedial Excavation Sample Results

Analytical results were received from the laboratory on February 24, 2025. Arsenic was detected at a concentration of 21 mg/kg in Sample ID 4S1, slightly exceeding the applicable MTCA Method A cleanup value of 20 mg/kg. Arsenic was not detected in the other seven samples above the laboratory reporting limits.

REMEDICATION THROUGH DILUTION

On March 5, 2025, under the observation of a SoundEarth geologist, an excavator operated by Lawson and Sons, LLC thoroughly bucket mixed an approximately 10-foot square area around the location of Sample ID 4S1 at a depth range of approximately 0 to 18 inches bgs. The mixing was performed in accordance with the TSP Model Remedies Guidance (Ecology, 2019). No visual indication of contamination was observed within the mixed soil. SoundEarth collected soil samples at five locations surrounding the location of Sample ID 4S1 (Figure 3) and submitted the samples to OnSite for laboratory analysis of total arsenic by EPA Method 6010D.

Soil samples were collected in laboratory-prepared glassware, labeled, placed on ice in a cooler, and transported to Onsite under standard chain-of-custody protocols for laboratory analysis.

Mixed Soil Sample Results

Analytical Results were received from the laboratory on March 14, 2025. Arsenic was not detected in any of the five samples above the laboratory reporting limits.

DATA QUALITY REVIEW

SoundEarth reviewed laboratory quality control data provided along with the Onsite laboratory analytical reports to evaluate the usability of the analytical results. SoundEarth reviewed the accuracy and precision data in addition to sample holding times, laboratory method blanks, and laboratory method detection limits, where applicable. Quality control criteria are acceptable for the soil samples. The laboratory analytical reports are provided as Attachment C.

CONCLUSIONS

The results of SoundEarth's cleanup action suggest that arsenic-contaminated soil previously discovered by Terra in May 2023 at sample location A-9 has been adequately remediated utilizing a combination of excavation and disposal followed by dilution through soil mixing. Based on the proximity of the exceedance to the former residence on the Property, the source of the arsenic exceedance is inferred to be related to a release related to past residential use. It is SoundEarth's opinion that the property is suitable for a No Further Action at initial investigation determination from Ecology.

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with SoundEarth's agreement with the client. This report is solely for the use and information of the client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

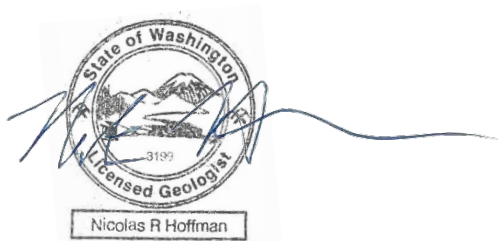
Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. SoundEarth does not warrant and is not responsible for the accuracy or validity of work performed by others, nor from the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. SoundEarth does not warrant the use of segregated portions of this report.

CLOSING

SoundEarth appreciates the opportunity to provide you with technical services for this project. Please contact the undersigned at 206-390-1600 with any questions or comments.

Respectfully,

SoundEarth Strategies, Inc.



Nicolas R. Hoffman L.G.
Principal

Attachments: Figure 1, Property Location Map
Figure 2, Index Location Plan
Figure 3, Sample Location Sketch
Table 1, Soil Analytical Results Arsenic
Attachment A – Supporting Documents
Attachment B – Disposal Truck Ticket
Attachment C – Analytical Laboratory Reports

cc: Donna Kirkman - Ecology

NRH:maw

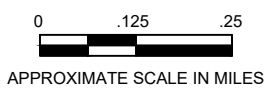
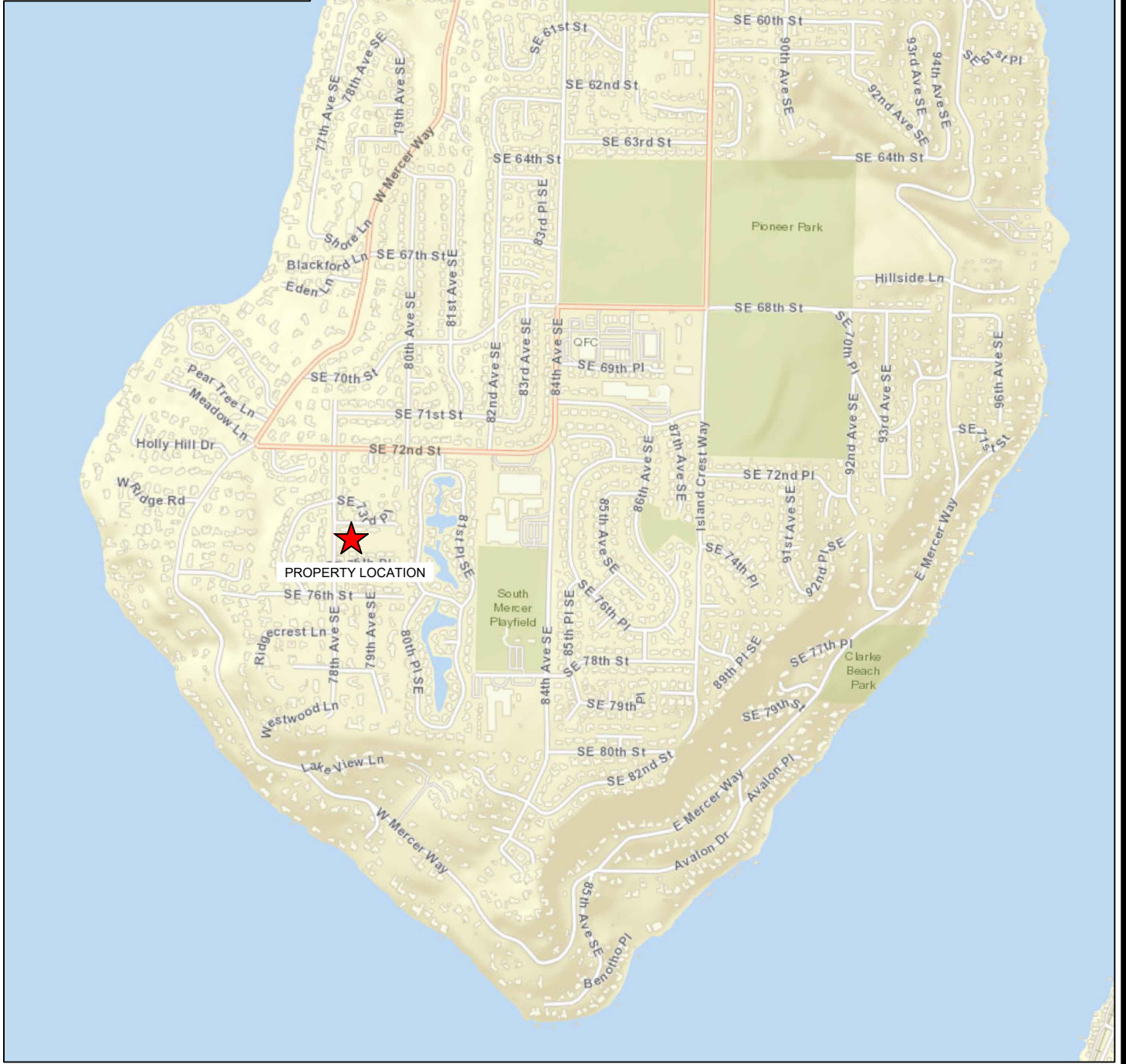
REFERENCES

Terra Associates, Inc. (Terra). 2023. *Tacoma Smelter Plume Site Assessment, Saintfield Property, 7414 78th Avenue Southeast, Mercer Island, Washington*. Revised June 7, 2024. June 5.

Washington State Department of Ecology (Ecology). 2019. *Tacoma Smelter Plume Model Remedies Guidance*. Publication No. 19-09-101. July.

_____.2024. *Letter Re: Saintfield Property – Tacoma Smelter Plume Assessment*. July 3.

FIGURES



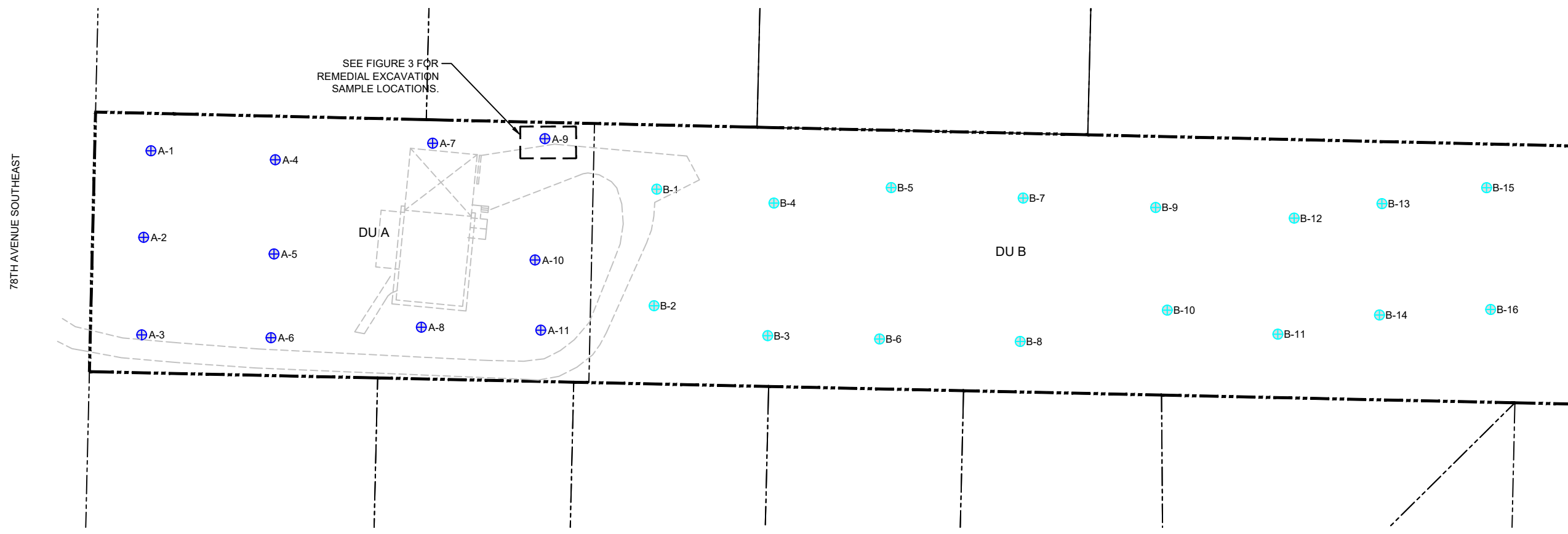
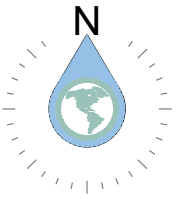
SoundEarth Strategies
 1011 SW Klickitat Way, Suite 212
 Seattle, Washington 98134
 Ph: 206.306.1900 Fax: 206.306.1907

SAINTFIELD PROPERTY
 7414 78TH AVENUE SOUTHEAST
 MERCER ISLAND, WASHINGTON
 SOUNDEARTH PROJECT #: 1673-001

PROPERTY LOCATION MAP

FIGURE 1

PROJECT MANAGER: N. HOFFMAN DRAWN BY: F. DIMALANTA



ALL LOCATIONS ARE APPROXIMATE.
FOR ILLUSTRATIVE PURPOSES ONLY.



SAINTFIELD PROPERTY
7414 78TH AVENUE SOUTHEAST
MERCER ISLAND, WASHINGTON
SOUNDEARTH PROJECT #: 1673-001

INDEX LOCATION PLAN

FIGURE 2

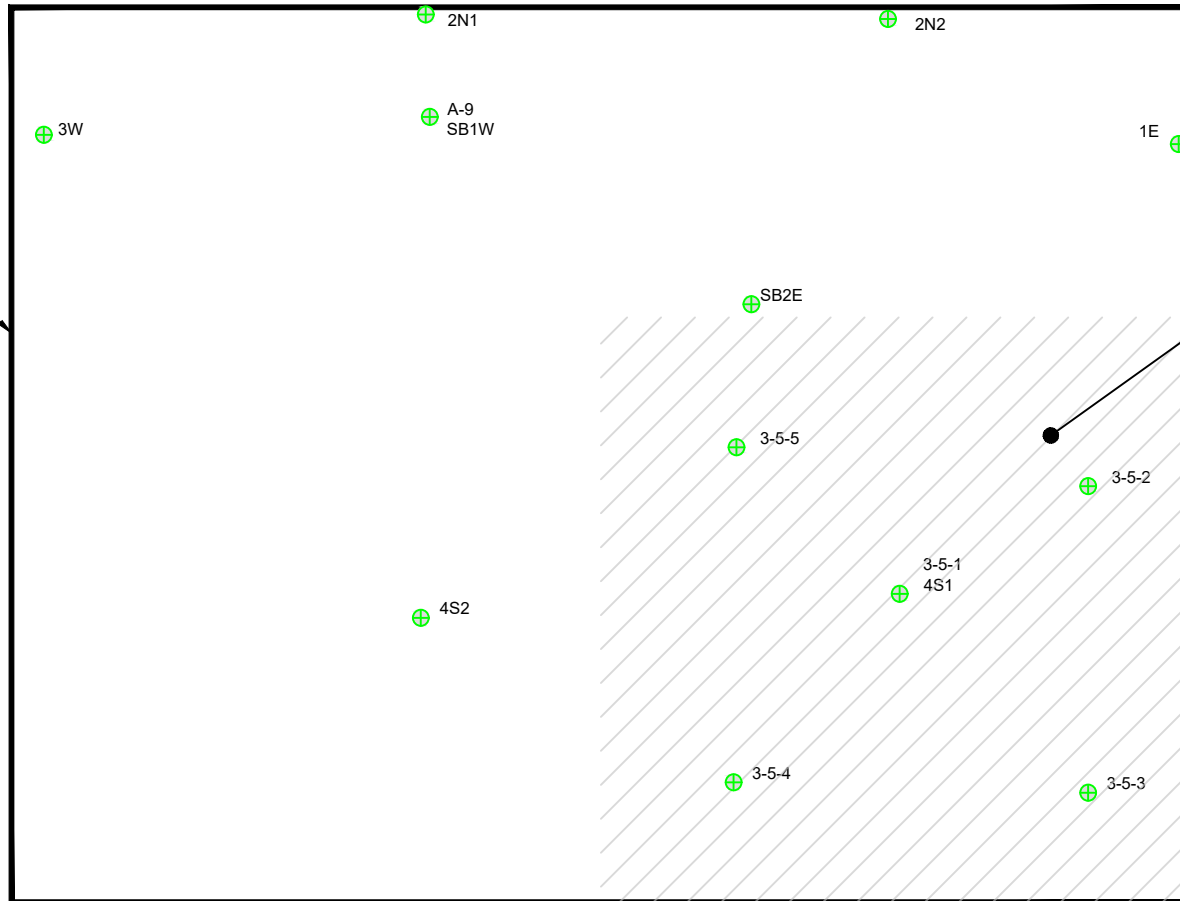
PROJECT MANAGER: N. HOFFMAN DRAWN BY: F. DIMALANTA

LEGEND	
	SUBJECT PROPERTY LINE
	ADJOINING PARCEL LINE
	A-1 APPROXIMATE SAMPLE LOCATION, DU A
	B-1 APPROXIMATE SAMPLE LOCATION, DU B



APPROXIMATE NORTH PROPERTY LINE

APPROXIMATE LIMITS OF EXCAVATION

SHADED AREA INDICATES SOIL MIXED IN PLACE



LEGEND

-  SUBJECT PROPERTY BOUNDARY
-  3-5-4 APPROXIMATE SAMPLE LOCATION



APPROXIMATE SCALE IN FEET



1011 SW Klickitat Way, Suite 212
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SAINTFIELD PROPERTY
 7414 78TH AVENUE SOUTHEAST
 MERCER ISLAND, WASHINGTON
 SOUNDEARTH PROJECT #: 1673-001

SAMPLE LOCATION SKETCH

FIGURE 3

PROJECT MANAGER: N. HOFFMAN DRAWN BY: F. DIMALANTA

TABLE



Table 1
Soil Analytical Results for Total Arsenic
Saintfield Property
7414 78th Avenue Southeast
Mercer Island, Washington

Sample ID	Sampled By	Date Sampled	Depth (feet bgs)	Analytical Results ⁽¹⁾ (milligrams per kilogram)
				Arsenic
1E	SoundEarth	02/13/25	1	<13
2N1	SoundEarth	02/13/25	1	<13
2N2	SoundEarth	02/13/25	1	<13
3W	SoundEarth	02/13/25	1	<12
4S1	SoundEarth	02/13/25	1	21
4S2	SoundEarth	02/13/25	1	<13
SB1W	SoundEarth	02/13/25	1.5	<12
SB2E	SoundEarth	02/13/25	1.5	<12
3-5-1	SoundEarth	03/05/25	1.5	<12
3-5-2	SoundEarth	03/05/25	1.5	<12
3-5-3	SoundEarth	03/05/25	1.5	<12
3-5-4	SoundEarth	03/05/25	1.5	<12
3-5-5	SoundEarth	03/05/25	1.5	<12
MTCA Cleanup Level for Soil				20⁽²⁾

NOTES:

Red denotes concentration exceeds MTCA cleanup level for soil.

Yellow shading indicates samples collected after soil mixing.

Sample analyses conducted by ONSITE ENVIRONMENTAL, INC. of SEATTLE, WASHINGTON

⁽¹⁾Samples analyzed by EPA Method 6010D.

⁽²⁾MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A
 Cleanup Levels for Soil, Unrestricted Land Uses.

Noncancer,

Direct Contact, CLARC Website <<https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>>.

Laboratory Notes:

< indicates analyte not detected at or above laboratory reporting limit shown.

bgs = below ground surface

CLARC = Cleanup Levels and Risk Calculation

EPA = US Environmental protection Agency

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

ATTACHMENT A
SUPPORTING DOCUMENTS

Terra Associates Tacoma Smelter Plume Site Assessment Report



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

June 5, 2023
Revised June 7, 2024
Project No. T-8832-1

Mr. Wes Giesbrecht
Atlin Investments
P.O. Box 791
Mercer Island, Washington 98040

Subject: Tacoma Smelter Plume Site Assessment
Saintfield Property
7414-78th Avenue Southeast
Mercer Island, Washington
King County Tax Parcel 2524049075

Dear Mr. Giesbrecht:

We have completed our assessment of the project site for impacts from the Tacoma Smelter Plume.

We understand that the current project involves the development of the site into a new 4-lot short plat for the construction of single-family residences. The site covers 1.58 acres.

SCOPE OF WORK

We followed the procedures described in Ecology Publication 19-09-101, Asarco Tacoma Smelter Model Remedies Guidance for the Tacoma Smelter Plume.

To determine the actual levels of arsenic, we divided the site into two Decision Units. These Decision Units are based upon historical land use and proposed land use.

The Decision Units consist of the following:

Decision Unit	Predominant land cover	Proposed land use	Acreage
DU-A	Lawn and Driveway	Redeveloped	0.58
DU-B	Forest	Redeveloped	1.0

In Decision Unit A, soil samples were collected for lead and arsenic analysis at a total of 11 locations. We sampled the upper six inches of soil at all locations. At one-fourth of the locations, we sampled from 6- to 12-inches-deep. No significant amounts of duff were observed in Decision Unit A

In Decision Unit B, soil samples were collected for lead and arsenic analysis at a total of 16 locations. We sampled the upper six inches of soil at all locations. At one-fourth of the locations, we sampled from 6- to 12-inches-deep. Two composite duff samples were collected from Decision Unit B.

PROJECT DESCRIPTION

The project site consists of a 1.58-acre tax parcel located at 7414 78th Avenue Southeast, on the southern portion of Mercer Island.

Roughly the western one-third of the parcel is covered by a single-family residence, gravel driveways, grass lawn, and ornamental landscaping. The western two-thirds of the parcel is covered by forest consisting of a mixture of deciduous and evergreen trees with a moderately thick understory.

The approximate location of the property is shown in Figure 1. Figure 2 is a Sample Location Plan showing existing site conditions.

The soils observed in subsurface explorations for our prior geotechnical study generally consist of a thin layer of topsoil overlying glacial deposits consisting primarily of silty sand with gravel. The upper approximately four to five feet of the native soils are typically medium dense weathered glacial till, and overly dense to very dense unweathered glacial till.

The *Geologic Map of Mercer Island, Washington*, by K.G. Troost and A.P. Wisher (2006) shows the site soils mapped as Vashon till (Qvt). The dense to very dense, cemented soils observed in our subsurface explorations are generally consistent with this geologic map unit.

Based on available topographic information, our field observations, and our local experience, groundwater will have a general flow direction towards the west. No shallow perched groundwater was found in the five test pits advanced as part of our prior geotechnical study. Local variations in groundwater gradients will occur as a result of man-made features, such as drainage ditches, sewers, and roads. The topography of the parcel slopes gently to the west with about 30 feet of overall relief.

INITIAL SAMPLING

Soil sampling was conducted on May 16, 2023. For the sampling event, samples were obtained from a grid pattern superimposed on each of the two decision units for the site. Sample locations were offset around the existing residence and gravel driveway present within Decision Unit A. Soil was sampled at a total of 27 locations. Two composite duff samples, comprised of six subsamples each, were collected from Decision Unit B. A total of 35 individual samples were analyzed for lead and arsenic. Sampling proceeded in general accordance with Ecology Publication 19-09-101. Sample locations are presented in Figure 2 attached to this report.

The samples were placed into laboratory prepared glassware. Chain of custody protocols were followed for all samples. At the lab, the samples were prepared for analysis by sieving the samples through a 2mm (US No. 10) sieve to remove gravel. The test results for all samples are attached in Appendix A.

SAMPLE RESULTS

The results of the current sampling are presented on Tables 1 and 2 attached to this report.

Decision Unit A (DU-A)

DU-A was comprised of disturbed ground that has been cleared in the past. As shown on Table 1, arsenic concentrations range from 8.5 to 81 mg/kg in the 0- to 6-inch interval. The average arsenic concentration in the 0- to 6-inch interval is 18.6 mg/kg. Arsenic was not detected at the laboratory practical quantitation limits (PQLs) in any of the samples collected from 6-12 inches in DU-A. The average arsenic concentration for DU-A at both depths is below the MTCA Method A cleanup level of 20 mg/kg. The lead levels in the soil samples ranged from 9.8 to 77 mg/kg in the 0- to 6 inch interval. The average lead level in the 0 to 6-inch depth is 30.2 mg/kg. Lead was not detected in the samples collected from 6- to 12 inches at the laboratory PQLs. The average lead levels for both depths in DU-A are below the MTCA Method A cleanup level of 250 mg/kg.

Decision Unit B (DU-B)

DU-B was comprised primarily of undisturbed ground. As shown on Table 2A, arsenic concentrations ranged from 2.9 to 18 mg/kg. The average concentration of arsenic in the 0- to 6-inch interval is 11.47 mg/kg. The average arsenic concentration in the 6- to 12-inch depth is 5.1 mg/kg. The average arsenic for both depths in DU-B were below the MTCA Method A cleanup value of 20 mg/kg. Lead concentrations in soil samples in DU-B ranged from 6.8 to 59 mg/kg. The average lead concentration in the 0- to 6-inch depth is 31.8 mg/kg. The average lead level in the 6- to 12-inch depth is 14.12 mg/kg. The average lead levels for both depths in DU-B are all below the MTCA Method A cleanup level of 250 mg/kg.

The concentrations of arsenic in the composite duff samples ranged from 12 to 16 mg/kg with an average concentration of 14 mg/kg. The levels of lead ranged from 38 to 55 mg/kg with an average concentration of 46.5 mg/kg.

DISCUSSION

Decision Unit A (DU-A)

Based on the levels of arsenic in the upper 0 to 6-inch levels documented in Table 1, it is our opinion a relatively small, localized area of surface soil in DU-A has been impacted by arsenic above applicable MTCA method A cleanup values. Sample A-9, at the 0-6 inch interval was the only sample out of the 35 analyzed for this assessment with an applicable MTCA exceedance. Publication 19-09-101 provides two permanent model remedies for cleanup of impacts related to the TSP. The area with the exceedance can either be excavated with soil disposed of at an appropriate waste facility or mixed in place to reduce concentrations below applicable cleanup values.

It is our understanding you would prefer to excavate the area of impacted soil and dispose of it at a waste facility.

Follow-up confirmation sampling will be required regardless of which model remedy is selected.

Decision Unit B (DU-B)

Based on the testing discussed above and documented in Tables 2 and 2A, it is our opinion that no special procedures are needed in DU-B.

General

Following the guidelines established in Ecology Publication 19-09-101, no elevated arsenic or lead related to the TSP was identified in either of the two Decision Units except for the 0 to 6-inch sample collected in DU-A at location A-9 (81 mg/kg arsenic). The average concentrations of arsenic and lead in both depth intervals and duff are all below the applicable MTCA Method A cleanup levels of 20 mg/kg and 250 kg, respectively. Per the guidance provided in the above noted Ecology publication, the concentration of arsenic in sample A-9 is more than twice the cleanup value and is considered elevated.

Following the guidance established in Pub. 19-09-101, soil in the area with the exceedance should be excavated, stockpiled, and sampled prior to exporting to a waste facility. The haul trucks should tightly cover their loads prior to transport.

For imported fill materials that do not have a documented clean source, a minimum of three composite samples should be taken from each stockpile. Each composite sample should consist of three subsamples.

LIMITATIONS

The findings, conclusions, and recommendations presented in this report are our professional opinions based on our documented site observations, our review of current Ecology guidelines, our recent local experience, and the

Mr. Wes Giesbrecht
June 5, 2024

analytical testing summarized in this report. Other information related to past site uses or current site conditions may exist.

If further information on the site becomes available, Terra Associates, Inc. should review the information, as it may affect our conclusions.

We prepared our conclusions and recommendations in general accordance with current guidance from Ecology and generally accepted local professional engineering practices in use at this time. We make no other warranty, either expressed, or implied. This letter is the copyrighted property of Terra Associates, Inc. and is for the specific application to the Saintfield Property project in Mercer Island, Washington. This letter is for the exclusive use of Atlin Investments and their authorized representatives.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

A handwritten signature in blue ink, appearing to read "Nick Hoffman", with a long horizontal flourish extending to the right.

Nick Hoffman, L.G.
Senior Project Geologist
Environmental Professional

Attachments: Table 1 – Analytical Test Result Summary DU-A
Table 2A and 2B – Analytical Test Result Summary-DU-B
Figure 1 – Vicinity Map
Figure 2 – Sample Location Sketch
Appendix A – Analytical Test Report

Table 1
Decision Unit A
Analytical Test Result Summary

Sample Location	Depth (inches)	As (mg/kg)	Pb (mg/kg)
A-1	0-6	18	48
A-2	0-6	12	24
A-3	0-6	16	46
A-4	0-6	9.3	22
	6-12	2.8U	5.6U
A-5	0-6	13	27
A-6	0-6	11	9.8
A-7	0-6	16	23
A-8	0-6	8.5	18
	6-12	3.1U	6.2U
A-9	0-6	81	77
A-10	0-6	8.5	22
A-11	0-6	11	20
<i>Average Arsenic 0-6"</i>		<i>18.6</i>	<i>30.6</i>
<i>Average Arsenic 6-12"</i>		<i>2.95</i>	<i>5.9</i>
MTCA Method A		20	250

Notes: U modifier indicates analyte not detected as the laboratory practical quantitation Limit (PQL).

All samples analyzed utilizing method EPA 6010D.

All units are in milligrams per kilogram (mg/kg).

Shaded cells exceed MTCA Method A cleanup value.

All depths are in inches below existing grade.

Values in italics are average values.

Table 2A
Decision Unit B
Analytical Test Result Summary

Sample Location	Depth (inches)	As (mg/kg)	Pb (mg/kg)
B-1	0-6	18	55
B-2	0-6	11	13
B-3	0-6	5.6	7.2
B-4	0-6	17	42
	6-12	3.4U	6.8U
B-5	0-6	14	42
B-6	0-6	5.2	13
B-7	0-6	3.5	12
B-8	0-6	13	37
	6-12	3.1U	6.9
B-9	0-6	7.8	16
B-10	0-6	17	59
B-11	0-6	17	57
B-12	0-6	10	30
	6-12	11	32
B-13	0-6	3.2U	12
B-14	0-6	18	43
B-15	0-6	11	32
B-16	0-6	12	39
	6-12	2.9U	11
<i>Average Arsenic 0-6"</i>		<i>11.5</i>	<i>31.8</i>
<i>Average Arsenic 6-12"</i>		<i>5.1</i>	<i>14.2</i>
MTCA Method A		20	250

Notes: U modifier indicates analyte not detected as the laboratory practical quantitation Limit (PQL).

All samples analyzed utilizing method EPA 6010D.

All units are in milligrams per kilogram (mg/kg).

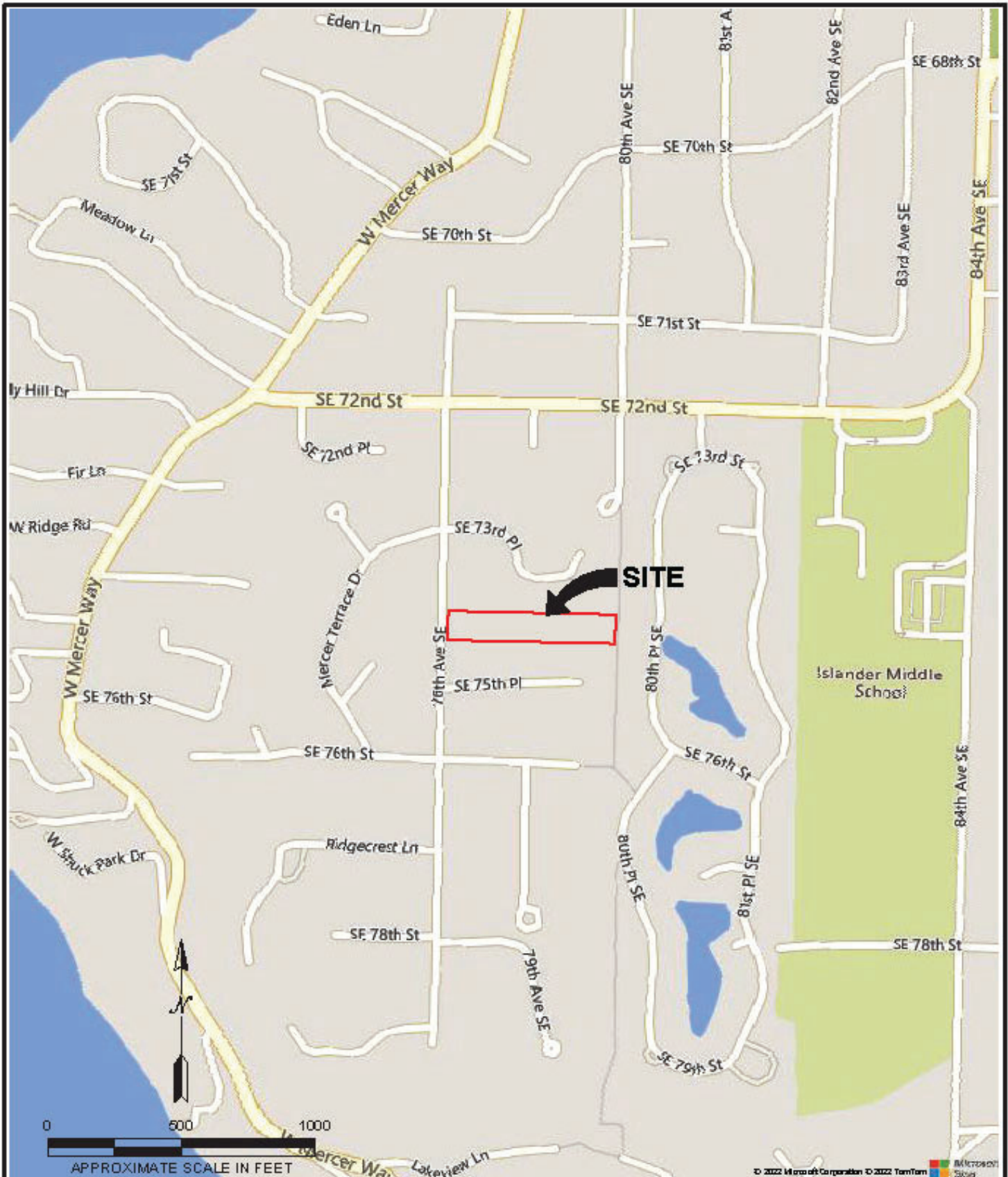
All depths are in inches below existing grade.

Values in italics are average values.

Table 2B
Duff
Decision Unit B

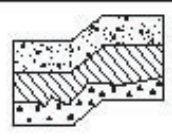
Sample Location	Arsenic	Lead
B Duff-1	16	55
B Duff-2	12	38
MTCA	20	250

Notes: All depths are in inches below existing grades.
All sample results are in mg/kg.
Shaded cells exceed MTCA Method A cleanup value.
Values in *Italics* are average values.



REFERENCE: <https://www.bing.com/maps>

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 Microsoft
 Bing
 ACCESSED 12/2/22



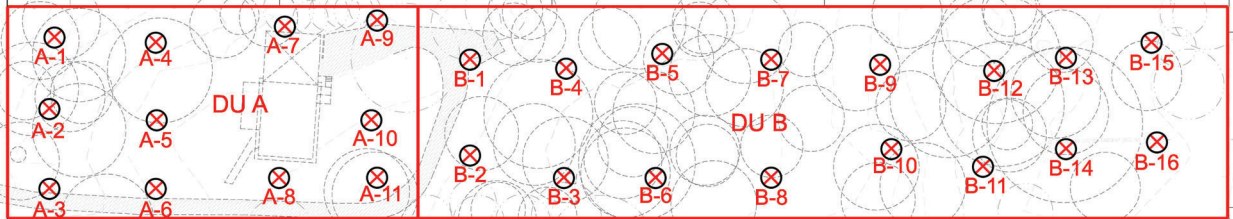
Terra Associates, Inc.
 Consultants in Geotechnical Engineering
 Geology and
 Environmental Earth Sciences

VICINITY MAP
 78TH AVENUE SHORT PLAT
 MERCER ISLAND, WASHINGTON

Proj.No.T-8832-1	Date:JUNE 2024	Figure 1
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78th Avenue Southeast



KEY

⊗ Approximate Sample Location

NOTE:
 THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.



TERRA ASSOCIATES

Geotechnical Consultants

**SAMPLE LOCATION PLAN
 SAINTFIELD PROPERTY
 MERCER ISLAND, WASHINGTON**

Proj. No. T-8832-1	Date June 2024	Figure 2
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Mr. Wes Giesbrecht
June 5, 2024

APPENDIX A

ANALYTICAL TEST REPORT



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

May 25, 2023

Nick Hoffman
Terra Associates, Inc.
12220 113th Avenue NE, Suite 130
Kirkland, WA 98034

Re: Analytical Data for Project 8832-1
Laboratory Reference No. 2305-170

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on May 16, 2023.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



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

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

Date of Report: May 25, 2023
Samples Submitted: May 16, 2023
Laboratory Reference: 2305-170
Project: 8832-1

Case Narrative

Samples were collected on May 16, 2023 and received by the laboratory on May 16, 2023. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Total Metals EPA 6010D Analysis

Samples were sieved through a 2mm sieve prior to digestion and percent moisture determination.

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



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

**TOTAL METALS
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	A-1 0-6"					
Laboratory ID:	05-170-01					
Arsenic	18	3.4	EPA 6010D	5-22-23	5-22-23	
Lead	48	6.9	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-2 0-6"					
Laboratory ID:	05-170-02					
Arsenic	12	3.3	EPA 6010D	5-22-23	5-22-23	
Lead	24	6.5	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-3 0-6"					
Laboratory ID:	05-170-03					
Arsenic	16	4.0	EPA 6010D	5-22-23	5-22-23	
Lead	46	8.0	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-4 0-6"					
Laboratory ID:	05-170-04					
Arsenic	9.3	3.0	EPA 6010D	5-22-23	5-22-23	
Lead	22	6.0	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-4 6-12"					
Laboratory ID:	05-170-05					
Arsenic	ND	2.8	EPA 6010D	5-22-23	5-22-23	
Lead	ND	5.6	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-5 0-6"					
Laboratory ID:	05-170-06					
Arsenic	13	3.2	EPA 6010D	5-22-23	5-22-23	
Lead	27	6.3	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-6 0-6"					
Laboratory ID:	05-170-07					
Arsenic	11	3.0	EPA 6010D	5-22-23	5-22-23	
Lead	9.8	6.1	EPA 6010D	5-22-23	5-22-23	



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

**TOTAL METALS
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	A-7 0-6"					
Laboratory ID:	05-170-08					
Arsenic	16	2.9	EPA 6010D	5-22-23	5-22-23	
Lead	23	5.9	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-8 0-6"					
Laboratory ID:	05-170-09					
Arsenic	8.5	3.1	EPA 6010D	5-22-23	5-22-23	
Lead	18	6.3	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-8 6-12"					
Laboratory ID:	05-170-10					
Arsenic	ND	3.1	EPA 6010D	5-22-23	5-22-23	
Lead	ND	6.2	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-9 0-6"					
Laboratory ID:	05-170-11					
Arsenic	81	3.5	EPA 6010D	5-22-23	5-22-23	
Lead	77	7.1	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-10 0-6"					
Laboratory ID:	05-170-12					
Arsenic	8.5	3.3	EPA 6010D	5-22-23	5-22-23	
Lead	22	6.7	EPA 6010D	5-22-23	5-22-23	

Client ID:	A-11 0-6"					
Laboratory ID:	05-170-13					
Arsenic	11	3.4	EPA 6010D	5-22-23	5-22-23	
Lead	20	6.8	EPA 6010D	5-22-23	5-22-23	

Client ID:	B-1 0-6"					
Laboratory ID:	05-170-14					
Arsenic	18	3.7	EPA 6010D	5-22-23	5-22-23	
Lead	55	7.5	EPA 6010D	5-22-23	5-22-23	



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

**TOTAL METALS
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B-2 0-6"					
Laboratory ID:	05-170-15					
Arsenic	11	3.1	EPA 6010D	5-22-23	5-22-23	
Lead	13	6.2	EPA 6010D	5-22-23	5-22-23	

Client ID:	B-3 0-6"					
Laboratory ID:	05-170-16					
Arsenic	5.6	3.3	EPA 6010D	5-22-23	5-22-23	
Lead	7.2	6.5	EPA 6010D	5-22-23	5-22-23	

Client ID:	B-4 0-6"					
Laboratory ID:	05-170-17					
Arsenic	17	3.5	EPA 6010D	5-22-23	5-22-23	
Lead	42	6.9	EPA 6010D	5-22-23	5-22-23	

Client ID:	B-4 6-12"					
Laboratory ID:	05-170-18					
Arsenic	ND	3.4	EPA 6010D	5-22-23	5-22-23	
Lead	ND	6.8	EPA 6010D	5-22-23	5-22-23	

Client ID:	B-5 0-6"					
Laboratory ID:	05-170-19					
Arsenic	14	5.0	EPA 6010D	5-22-23	5-22-23	
Lead	42	10	EPA 6010D	5-22-23	5-22-23	

Client ID:	B-6 0-6"					
Laboratory ID:	05-170-20					
Arsenic	5.2	3.4	EPA 6010D	5-23-23	5-24-23	
Lead	13	6.8	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-7 0-6"					
Laboratory ID:	05-170-21					
Arsenic	3.5	3.2	EPA 6010D	5-23-23	5-24-23	
Lead	12	6.3	EPA 6010D	5-23-23	5-24-23	



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

**TOTAL METALS
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B-8 0-6"					
Laboratory ID:	05-170-22					
Arsenic	13	3.3	EPA 6010D	5-23-23	5-24-23	
Lead	37	6.7	EPA 6010D	5-23-23	5-24-23	
Client ID:	B-8 6-12"					
Laboratory ID:	05-170-23					
Arsenic	ND	3.1	EPA 6010D	5-23-23	5-24-23	
Lead	6.9	6.1	EPA 6010D	5-23-23	5-24-23	
Client ID:	B-9 0-6"					
Laboratory ID:	05-170-24					
Arsenic	7.8	3.0	EPA 6010D	5-23-23	5-24-23	
Lead	16	6.0	EPA 6010D	5-23-23	5-24-23	
Client ID:	B-10 0-6"					
Laboratory ID:	05-170-25					
Arsenic	17	3.3	EPA 6010D	5-23-23	5-24-23	
Lead	59	6.6	EPA 6010D	5-23-23	5-24-23	
Client ID:	B-11 0-6"					
Laboratory ID:	05-170-26					
Arsenic	17	3.6	EPA 6010D	5-23-23	5-24-23	
Lead	57	7.1	EPA 6010D	5-23-23	5-24-23	
Client ID:	B-12 0-6"					
Laboratory ID:	05-170-27					
Arsenic	10	3.4	EPA 6010D	5-23-23	5-24-23	
Lead	30	6.9	EPA 6010D	5-23-23	5-24-23	
Client ID:	B-12 6-12"					
Laboratory ID:	05-170-28					
Arsenic	11	3.2	EPA 6010D	5-23-23	5-24-23	
Lead	32	6.3	EPA 6010D	5-23-23	5-24-23	



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

**TOTAL METALS
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B-13 0-6"					
Laboratory ID:	05-170-29					
Arsenic	ND	3.2	EPA 6010D	5-23-23	5-24-23	
Lead	12	6.4	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-14 0-6"					
Laboratory ID:	05-170-30					
Arsenic	18	3.1	EPA 6010D	5-23-23	5-24-23	
Lead	43	6.2	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-15 0-6"					
Laboratory ID:	05-170-31					
Arsenic	11	3.1	EPA 6010D	5-23-23	5-24-23	
Lead	32	6.3	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-16 0-6"					
Laboratory ID:	05-170-32					
Arsenic	12	3.3	EPA 6010D	5-23-23	5-24-23	
Lead	39	6.6	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-16 6-12"					
Laboratory ID:	05-170-33					
Arsenic	ND	2.9	EPA 6010D	5-23-23	5-24-23	
Lead	11	5.9	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-Duff1					
Laboratory ID:	05-170-34					
Arsenic	16	3.8	EPA 6010D	5-23-23	5-24-23	
Lead	55	7.6	EPA 6010D	5-23-23	5-24-23	

Client ID:	B-Duff2					
Laboratory ID:	05-170-35					
Arsenic	12	2.9	EPA 6010D	5-23-23	5-24-23	
Lead	38	5.9	EPA 6010D	5-23-23	5-24-23	



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

**TOTAL METALS
 EPA 6010D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0522SM1					
Arsenic	ND	2.5	EPA 6010D	5-22-23	5-22-23	
Lead	ND	5.0	EPA 6010D	5-22-23	5-22-23	
METHOD BLANK						
Laboratory ID:	MB0523SM3					
Arsenic	ND	2.5	EPA 6010D	5-23-23	5-24-23	
Lead	ND	5.0	EPA 6010D	5-23-23	5-24-23	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	05-170-01							
	ORIG	DUP						
Arsenic	13.1	14.2	NA	NA	NA	NA	8	20
Lead	34.9	35.2	NA	NA	NA	NA	1	20
DUPLICATE								
Laboratory ID:	05-170-20							
	ORIG	DUP						
Arsenic	3.87	3.37	NA	NA	NA	NA	14	20
Lead	9.90	10.4	NA	NA	NA	NA	4	20

MATRIX SPIKES

Laboratory ID:	05-170-01									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	107	105	100	100	13.1	93	92	75-125	2	20
Lead	275	270	250	250	34.9	96	94	75-125	2	20
MATRIX SPIKES										
Laboratory ID:	05-170-20									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	87.8	86.9	100	100	3.87	84	83	75-125	1	20
Lead	245	243	250	250	9.90	94	93	75-125	1	20



Date of Report: May 25, 2023
 Samples Submitted: May 16, 2023
 Laboratory Reference: 2305-170
 Project: 8832-1

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
A-1 0-6"	05-170-01	27	5-19-23
A-2 0-6"	05-170-02	24	5-19-23
A-3 0-6"	05-170-03	37	5-19-23
A-4 0-6"	05-170-04	16	5-19-23
A-4 6-12"	05-170-05	11	5-19-23
A-5 0-6"	05-170-06	21	5-19-23
A-6 0-6"	05-170-07	18	5-19-23
A-7 0-6"	05-170-08	15	5-19-23
A-8 0-6"	05-170-09	20	5-19-23
A-8 6-12"	05-170-10	19	5-19-23
A-9 0-6"	05-170-11	29	5-19-23
A-10 0-6"	05-170-12	25	5-19-23
A-11 0-6"	05-170-13	27	5-19-23
B-1 0-6"	05-170-14	33	5-19-23
B-2 0-6"	05-170-15	20	5-19-23
B-3 0-6"	05-170-16	23	5-19-23
B-4 0-6"	05-170-17	28	5-19-23
B-4 6-12"	05-170-18	26	5-19-23
B-5 0-6"	05-170-19	50	5-19-23
B-6 0-6"	05-170-20	26	5-19-23
B-7 0-6"	05-170-21	21	5-19-23
B-8 0-6"	05-170-22	25	5-19-23
B-8 6-12"	05-170-23	18	5-19-23
B-9 0-6"	05-170-24	17	5-19-23
B-10 0-6"	05-170-25	24	5-22-23
B-11 0-6"	05-170-26	30	5-22-23
B-12 0-6"	05-170-27	27	5-22-23



Date of Report: May 25, 2023
Samples Submitted: May 16, 2023
Laboratory Reference: 2305-170
Project: 8832-1

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
B-12 6-12"	05-170-28	21	5-22-23
B-13 0-6"	05-170-29	22	5-22-23
B-14 0-6"	05-170-30	20	5-22-23
B-15 0-6"	05-170-31	20	5-22-23
B-16 0-6"	05-170-32	24	5-22-23
B-16 6-12"	05-170-33	15	5-22-23
B-Duff1	05-170-34	34	5-22-23
B-Duff2	05-170-35	15	5-22-23





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - X2 - Sample extract treated with a silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Chain of Custody

Company: **TERRA ASSOCIATES INC (TAI)**

Project Number: **8832-1**

Project Name:

Project Manager: **NICK HOFFMAN**

Sampled by: **MAX PRICE**

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: 05-170

Lab ID	Sample Identification	Date		Matrix	Number of Containers
		Sampled	Time Sampled		
11	A-9 0-6"	5/16/23	1050	S	1
12	A-10 0-6"	↓	1055		↓
13	A-11 0-6"		1100		
14	B-1 0-6"		1110		
15	B-2 0-6"		1120		
16	B-3 0-6"		1125		
17	B-4 0-6"		1135		
18	B-4 6-12"		1140		
19	B-5 0-6"		1150		
20	B-6 0-6"		1155		

NWTPH-HCID	NWTPH-GX/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-GX	NWTPH-Dx (SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
																		X
																		X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>Max Price</i>	TAI	5/16/23	1440	KING CO. PROTOCOLS
Received	<i>Nichelle B. Price</i>	OSE	5/16/23	1440	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
					Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>

Chain of Custody

Company: **TERRA ASSOCIATES INC (TAI)**

Project Number: **8832-1**

Project Name:

Project Manager: **NICK HOFFMAN**

Sampled by: **MAX PRICE**

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)

_____ (other)

Laboratory Number: 05-170

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
21	B-7 0-6"	5/16/23	1205	S	1
22	B-8 0-6"		1215		
23	B-8 6-12"		1220		
24	B-9 0-6"		1230		
25	B-10 0-6"		1235		
26	B-11 0-6"		1250		
27	B-12 0-6"		1255		
28	B-12 6-12"		1300		
29	B-13 0-6"		1310		
30	B-14 0-6"		1320		

NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-Gx	NWTPH-Dx (SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
																	X	X

Arsenic + Lead

Signature	Company	Date	Time	Comments/Special Instructions
<i>Max Price</i>	TAI	5/16/23	1440	KING Co. PROTOCOLS
<i>Nick Hoffman</i>	OSE	5/16/23	1440	
				Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>
Reviewed/Date	Reviewed/Date			Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>

Ecology Comments on Tacoma Smelter Plume Site Assessment



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000

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Mr. Wes Giesbrecht
Atlin Investments
P.O. Box 791
Mercer Island, Washington 98040

7/3/2024

Re: Saintfield Property – Tacoma Smelter Plume Site Assessment

Thank you for the opportunity to provide comments on this proposed project. The property located at 7414 78th Avenue Southeast, on Mercer Island, Washington includes one King County Tax Parcel (Parcel Number 2524049075), totaling approximately 1.58 acres. This project is located in an area predicted to have arsenic and lead in the soil because of the air emissions from the old Asarco Smelter in Ruston, Washington (Figure 1).

The proposed project involves development of this site into a new 4-lot short plat for the construction of single-family residences. Ecology recommended soil sampling on the property to evaluate the levels of arsenic and lead in the soil prior to project commencement. Ecology also recommended enrollment in the Voluntary Cleanup Program (VCP) if lead or arsenic are found at concentrations above the Model Toxics Control Act (MTCA) Method A cleanup levels.

On behalf of Atlin Investments, Terra Associates, Inc. (Terra) conducted soil sampling on the Property on May 16, 2023. The Property was sampled as two Decision Units, Decision Unit A (DU-A), and Decision Unit B (DU-B). DU-A is developed with a residential home, driveways and landscaping. DU-B is currently undeveloped and forested. In May, a total of 33 soil samples were collected from 27 locations throughout the Property. Two composite duff samples were also collected from DU-B. Terra followed the recommended guidance in the Department of Ecology’s Tacoma Smelter Plume Model Remedies Guidance.

THE MTCA SOIL CLEANUP LEVELS:

- Average arsenic ≤ 20 mg/kg
- Average lead ≤ 250 mg/kg
- AND**
- Maximum arsenic ≤ 40 mg/kg
- Maximum lead ≤ 500 mg/kg

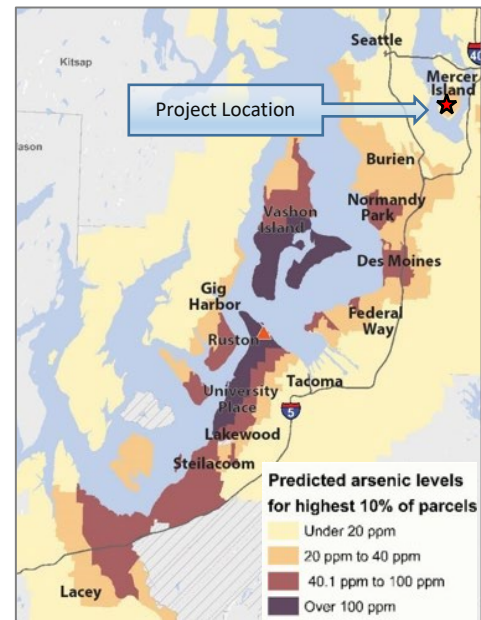


Figure 1. Vicinity Map

DU-A: A total of 13 discrete soil samples from 11 locations, were collected. Eleven samples were collected from 0 to 6 inches below ground surface (bgs), and two samples were collected from 6 to 12 inches bgs.

DU-B: A total of 20 discrete soil samples from 16 locations were collected. Sixteen samples were collected from 0 to 6 inches bgs, and four samples were collected from 6 to 12 inches bgs. Two composite duff samples were also collected.

Terra submitted the soil samples to OnSite Environmental Inc. in Seattle, Washington for an analysis of arsenic and lead concentrations with an Environmental Protection Agency (EPA) Method 6010D. A report with the results of soil sampling was submitted to Ecology¹. Terra noted one result, at soil sample location A-9, was elevated, with a result of 81 milligrams per kilogram (mg/kg) for arsenic. This result exceeds the maximum allowable concentration for a single soil sample of 40 mg/kg for arsenic.

Ecology reviewed the soil sampling results and determined the elevated arsenic result from location A-9 is likely not a result of Tacoma Smelter Plume (TSP) contamination, rather from another source. At this distance from the former smelter, soil contamination from TSP air emissions is typically lower concentration and more evenly distributed across the landscape. Except for the soil sample result at location A-9, no other soil or duff samples from the property exceeded the maximum allowable concentration for a single soil sample of 40 mg/kg for arsenic or 500 mg/kg for lead. Additionally, the average soil concentrations were below the cleanup level of 20 milligrams per kilogram (mg/kg) for arsenic and 250 mg/kg for lead (Table 1).

Table 1. Summary of Soil Sampling

Decision Unit A (DU-A)						
Sample Depth (inches)	Arsenic mg/kg (EPA 6010D)			Lead mg/kg (EPA 6010D)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
0-6 soil	8.5	81	18.6	9.8	77	30.6
6-12 soil	2.8U	3.1U	2.95	5.6U	6.2U	5.9
MTCA Method A cleanup level	40	20		500	250	
Decision Unit B (DU-B)						
Sample Depth (inches)	Arsenic mg/kg (EPA 6010D)			Lead mg/kg (EPA 6010D)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
0-6 soil	3.5	18	11.5	7.2	59	31.8
6-12 soil	2.9U	11	5.1	6.8U	32	14.2
Duff	12	16	14	38	55	46.5
MTCA Method A cleanup level	40	20		500	250	

Bold red values represent concentrations twice the MTCA Method A cleanup level.

¹ Terra Associates, Inc., *Tacoma Smelter Plume Site Assessment, Saintfield Property*, June 5, 2023.



Figure 2. Soil Sampling Locations

Ecology does not recommend this property enter the Voluntary Cleanup Program to remediate soils contaminated with heavy metals due to air emissions originating from the old Asarco smelter in North Tacoma. No soil remediation for the contamination associated with the Tacoma Smelter Plume is needed for this property.

However, location A-9 soil sample results indicate elevated arsenic. Ecology recommends filing an Environmental Report Tracking System (ERTS) report by contacting the ERTS Coordinator at the Northwest Regional Office at (206) 594-0000.

Please note, this is not a “No Further Action” determination for the property since the property was not enrolled into the VCP with Ecology.

Sincerely,

Diana Ison
 Technical Assistance Coordinator
[Toxics Cleanup Program](#)
 Southwest Region Office
 Washington State Department of Ecology
diana.ison@ecy.wa.gov
 Phone: 360-999-9593

**ATTACHMENT B
DISPOSAL TRUCK TICKET**

SITE
REGIONAL DISPOSAL INTERMODAL 425-977-4127
3rd and lander Seattle, WA

CUSTOMER
333856
Saintfield2 LLC
PO Box 137
Mercer Island, WA 98040
Contract:TB-16723

SITE	TICKET #	CELL
01	1029218	
WEIGHMASTER		
DATE/TIME IN	IN - Dale H.	DATE/TIME OUT
2/13/25 9:31 am		2/13/25 9:40 am
VEHICLE	1 LAWSON	CONTAINER
REFERENCE	THOR	
BILL OF LADING		

SCALE IN GROSS WEIGHT 77,640 NET TONS 22.84 INBOUND
SCALE OUT TARE WEIGHT 31,960 NET WEIGHT 45,680 INVOICE

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	Tracking QTY				
22.84	tn	SW-CONT W/FUEL Origin:MERCER ISLAND/KING 100%				

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by chapter 15.80 RCW administered by the Washington State Department of Agriculture.
INBOUND - SCALE INDICATOR 96135341 = E-Seal 2000
OUTBOUND - SCALE INDICATOR 1955300033 = E-Seal 2006
Stephanie Anderson

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

NET AMOUNT
TENDERED
CHANGE
CHECK#

RS-F042UPR (04/19)

SIGNATURE _____

SITE
REGIONAL DISPOSAL INTERMODAL 425-977-4127
3rd and lander -Seattle, WA

CUSTOMER
333856
Saintfield2 LLC
PO Box 137
Mercer Island, WA 98040
Contract:TB-16723

SITE	TICKET #	CELL
01	1029218	
WEIGHMASTER		
DATE/TIME IN	IN - Dale H.	DATE/TIME OUT
2/13/25 9:31 am		2/13/25 9:40 am
VEHICLE	1 LAWSON	CONTAINER
REFERENCE	THOR	
BILL OF LADING		

SCALE IN GROSS WEIGHT 77,640 NET TONS 22.84 INBOUND
SCALE OUT TARE WEIGHT 31,960 NET WEIGHT 45,680 INVOICE

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	Tracking QTY				
22.84	tn	SW-CONT W/FUEL Origin:MERCER ISLAND/KING 100%				

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by chapter 15.80 RCW administered by the Washington State Department of Agriculture.
INBOUND - SCALE INDICATOR 96135341 = E-Seal 2000
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Stephanie Anderson

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

NET AMOUNT
TENDERED
CHANGE
CHECK#

RS-F042UPR (04/19)

SIGNATURE _____

ATTACHMENT C
ANALYTICAL LABORATORY REPORTS



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

February 24, 2025

Nick Hoffman
Sound Earth Strategies
1011 SW Klickitat Way, Suite 212
Seattle, WA 98134

Re: Analytical Data for Project MISF
Laboratory Reference No. 2502-151

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on February 13, 2025.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



Date of Report: February 24, 2025
Samples Submitted: February 13, 2025
Laboratory Reference: 2502-151
Project: MISF

Case Narrative

Samples were collected on February 13, 2025 and received by the laboratory on February 13, 2025. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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



Date of Report: February 24, 2025
 Samples Submitted: February 13, 2025
 Laboratory Reference: 2502-151
 Project: MISF

**TOTAL ARSENIC
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	1E					
Laboratory ID:	02-151-01					
Arsenic	ND	13	EPA 6010D	2-19-25	2-19-25	
Client ID:	2N1					
Laboratory ID:	02-151-02					
Arsenic	ND	13	EPA 6010D	2-19-25	2-19-25	
Client ID:	2N2					
Laboratory ID:	02-151-03					
Arsenic	ND	13	EPA 6010D	2-19-25	2-19-25	
Client ID:	3W					
Laboratory ID:	02-151-04					
Arsenic	ND	12	EPA 6010D	2-19-25	2-19-25	
Client ID:	4S1					
Laboratory ID:	02-151-05					
Arsenic	21	12	EPA 6010D	2-19-25	2-19-25	
Client ID:	4S2					
Laboratory ID:	02-151-06					
Arsenic	ND	13	EPA 6010D	2-19-25	2-19-25	
Client ID:	SB1W					
Laboratory ID:	02-151-07					
Arsenic	ND	12	EPA 6010D	2-19-25	2-19-25	
Client ID:	SB2E					
Laboratory ID:	02-151-08					
Arsenic	ND	12	EPA 6010D	2-19-25	2-19-25	



Date of Report: February 24, 2025
 Samples Submitted: February 13, 2025
 Laboratory Reference: 2502-151
 Project: MISF

**TOTAL ARSENIC
 EPA 6010D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0219SM1					
Arsenic	ND	10	EPA 6010D	2-19-25	2-19-25	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	02-151-01							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	02-151-01									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	84.7	87.4	100	100	ND	85	87	75-125	3	20



Date of Report: February 24, 2025
Samples Submitted: February 13, 2025
Laboratory Reference: 2502-151
Project: MISF

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
1E	02-151-01	21	2-19-25
2N1	02-151-02	21	2-19-25
2N2	02-151-03	25	2-19-25
3W	02-151-04	16	2-19-25
4S1	02-151-05	15	2-19-25
4S2	02-151-06	23	2-19-25
SB1W	02-151-07	18	2-19-25
SB2E	02-151-08	17	2-19-25





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - X2 - Sample extract treated with a silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Chain of Custody

Company: Sound Earth
 Project Number: MISF
 Project Name:
 Project Manager: Nicolas R. Hoffman
 Sampled by: Nicolas R. Hoffman

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

Laboratory Number: **02-151**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	1E	2/13/25	8:20	Soil	1
2	2N1	↓	8:25	↓	↓
3	2N2		8:30		
4	3W		8:35		
5	4S1		8:40		
6	4S2		8:45		
7	SB1W SB1W		8:50		
8	SB2E		8:55		

NWTPH-HCID	NWTPH-Gx/BTEX (8021 □ 8260 □)	NWTPH-Gx	NWTPH-Dx (SG Clean-up □)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Total Arsenic	% Moisture
																	X	X
																	X	X
																	X	X
																	X	X
																	X	X
																	X	X
																	X	X

Signature	Company	Date	Time	Comments/Special Instructions
	Sound Earth	2/13/25	9:30	
	OSE	2/13/2025	0930	
Reviewed/Date	Reviewed/Date	Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>		
				Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>

Sample/Cooler Receipt and Acceptance Checklist

Client: SES

Client Project Name/Number: MIST

Initiated by: AP

OnSite Project Number: 02-151

Date Initiated: 2/13/2025

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	N/A	Temperature:	<u>7.9°C</u>
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	No	N/A		
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	Yes	No		1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	Yes	No		1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	No		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4	
3.5 Are volatile samples free from headspace and bubbles greater than 6mm?	Yes	No	N/A	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	N/A	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		N/A	1 2 3 4	

Explain any discrepancies:

1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed



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

March 14, 2025

Nick Hoffman
Sound Earth Strategies
1011 SW Klickitat Way, Suite 212
Seattle, WA 98134

Re: Analytical Data for Project 1673-001-01
Laboratory Reference No. 2503-030

Dear Nick:

Enclosed are the analytical results and associated quality control data for samples submitted on March 5, 2025.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



Date of Report: March 14, 2025
Samples Submitted: March 5, 2025
Laboratory Reference: 2503-030
Project: 1673-001-01

Case Narrative

Samples were collected on March 5, 2025 and received by the laboratory on March 5, 2025. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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



Date of Report: March 14, 2025
 Samples Submitted: March 5, 2025
 Laboratory Reference: 2503-030
 Project: 1673-001-01

**TOTAL ARSENIC
 EPA 6010D**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	3-5-1					
Laboratory ID:	03-030-01					
Arsenic	ND	12	EPA 6010D	3-10-25	3-11-25	
Client ID:	3-5-2					
Laboratory ID:	03-030-02					
Arsenic	ND	12	EPA 6010D	3-10-25	3-11-25	
Client ID:	3-5-3					
Laboratory ID:	03-030-03					
Arsenic	ND	13	EPA 6010D	3-10-25	3-11-25	
Client ID:	3-5-4					
Laboratory ID:	03-030-04					
Arsenic	ND	12	EPA 6010D	3-10-25	3-11-25	
Client ID:	3-5-5					
Laboratory ID:	03-030-05					
Arsenic	ND	13	EPA 6010D	3-10-25	3-11-25	



Date of Report: March 14, 2025
 Samples Submitted: March 5, 2025
 Laboratory Reference: 2503-030
 Project: 1673-001-01

**TOTAL ARSENIC
 EPA 6010D
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310SM1					
Arsenic	ND	10	EPA 6010D	3-10-25	3-10-25	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags	
DUPLICATE									
Laboratory ID:	03-024-01								
	ORIG	DUP							
Arsenic	14.2	18.7	NA	NA	NA	NA	27	20	C

MATRIX SPIKES

Laboratory ID:	03-024-01									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	109	124	100	100	14.2	94	110	75-125	14	20



Date of Report: March 14, 2025
Samples Submitted: March 5, 2025
Laboratory Reference: 2503-030
Project: 1673-001-01

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
3-5-1	03-030-01	17	3-10-25
3-5-2	03-030-02	19	3-10-25
3-5-3	03-030-03	20	3-10-25
3-5-4	03-030-04	18	3-10-25
3-5-5	03-030-05	20	3-10-25





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - X2 - Sample extract treated with a silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Chain of Custody

Company: Sand Earth
 Project Number: 1673-001-01
 Project Name:
 Project Manager: Nicolas R. Hoffman
 Sampled by: Nicolas R. Hoffman

Turnaround Request
 (in working days)

(Check One)

Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 _____ (other)

Laboratory Number: 03-030

Lab ID	Sample Identification	Date		Matrix	Number of Containers
		Sampled	Time Sampled		
1	3-5-1	3/5/25	8:05	Soil	1
2	3-5-2	↓	8:07	↓	↓
3	3-5-3	↓	8:09	↓	↓
4	3-5-4	↓	8:11	↓	↓
5	3-5-5	↓	8:13	↓	↓

NWTPH-HCID	NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)	NWTPH-Gx	NWTPH-Dx (SG Clean-up <input type="checkbox"/>)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticicides 8081	Organophosphorus Pesticicides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	Total Arsenic	% Moisture
																	X	X
																	X	X
																	X	X
																	X	X
																	X	X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<u>[Signature]</u>	<u>Sand Earth</u>	<u>3/5/25</u>	<u>9:15</u>	
Received	<u>Nichelle Bfni</u>	<u>OSE</u>	<u>3/5/25</u>	<u>09:15</u>	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>

Sample/Cooler Receipt and Acceptance Checklist

Client: SES

Client Project Name/Number: 1673-001-01

Initiated by: ND

OnSite Project Number: 03-030

Date Initiated: 3/5/25

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	<input checked="" type="radio"/> No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	<input checked="" type="radio"/> Yes	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	<input checked="" type="radio"/> No	N/A	Temperature:	<u>11</u>
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	<input checked="" type="radio"/> N/A			
1.7 How were the samples delivered?	<input checked="" type="radio"/> Client	<input type="radio"/> Courier	<input type="radio"/> UPS/FedEx	<input type="radio"/> OSE Pickup	<input type="radio"/> Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	<input checked="" type="radio"/> No		1 2 3 4	

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	<input checked="" type="radio"/> No		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	<input checked="" type="radio"/> No		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
3.4 Have the samples been correctly preserved?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
3.6 Is there sufficient sample submitted to perform requested analyses?	<input checked="" type="radio"/> Yes	No		1 2 3 4	
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	<input checked="" type="radio"/> No		1 2 3 4	
3.8 Was method 5035A used?	Yes	No	<input checked="" type="radio"/> N/A	1 2 3 4	
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#		<input checked="" type="radio"/> N/A	1 2 3 4	

Explain any discrepancies:

1 - Discuss issue in Case Narrative

3 - Client contacted to discuss problem

2 - Process Sample As-is

4 - Sample cannot be analyzed or client does not wish to proceed