



January 21, 2022

Mr. Morgan Llewellyn
Llewellyn Real Estate
601 West Grove Street
Kent, Washington 98032

**RE: Limited Phase II Subsurface Investigation and Geophysical Survey
Shamseldin Property
20841, 21001, and 21011 International Boulevard, SeaTac, Washington 98198
RGI Project No. 2021-678-3**

Dear Mr. Llewellyn:

The Riley Group, Inc. (RGI) is pleased to present our Limited Phase II Subsurface Investigation (Phase II) and Geophysical Survey for the above-referenced Shamseldin Property located at 20841, 21001, and 21011 International Boulevard in SeaTac, Washington (hereafter referred to as the Property, Figure 1). Authorization for this project was provided by Shannon Shamseldin on December 16, 2021.

PROJECT BACKGROUND

RGI completed, on behalf of Llewellyn Real Estate, a Phase I Environmental Site Assessment (ESA) on December 9, 2021 (RGI project number 2021-678-1). Based on our Phase I ESA findings, the following recognized environmental conditions (RECs) were identified:

- **Suspect Fuel Underground Storage Tank (UST):** Morgan Llewellyn, the client, indicated that “there may have been a small UST on the north side of the Property”. The status (abandoned, removed, or closed-in-place) of the UST is unknown. The location, size, and installation date of the UST are unknown. No environmental sampling and testing of soils adjacent to the suspect UST is known to have been performed. Therefore, the soil and shallow groundwater quality in the vicinity of the suspect UST is unknown. The suspect fuel UST was considered a REC.
- **Area-Wide Contamination:** Ecology’s Facility/Site Atlas online database mapped the Property as within the area affected by the Tacoma Smelter Plume. Arsenic concentrations ranging from 20.1 to 40 parts per million (ppm) have been found in soils tested near the Property. No known arsenic testing has been conducted at the Property. The Model Toxics Control Act (MTCA) Method A Soil Cleanup Level for Unrestricted Land Uses for arsenic is 20 ppm. The Property being located within the area known to have been affected by the former Tacoma Smelter Plume was considered a REC.

RGI recommended a geophysical survey be performed in an effort to locate any abandoned, decommissioned, or former UST locations at the Property and if an UST was discovered, that a Phase II be performed to evaluate the Property soil and shallow groundwater quality in the vicinity of the UST.

RGI also recommended shallow soil sampling at the Property to determine if shallow soils have been adversely impacted by the former Tacoma Smelter Plume.

At the request of Llwellyn Real Estate (hereafter referred to as the Client), RGI has prepared this Phase II report to evaluate the above summarized potential environmental concerns.

SCOPE OF WORK

The scope of work for this project was performed in accordance with our proposal, dated December 15, 2021 and included the following:

- Performed public and private utility locating in an attempt to identify the location(s) of buried utility lines servicing the building on the Property.
- Performed a geophysical survey of the accessible areas of the Property in an attempt to locate any existing abandoned or decommissioned-in-place UST(s).
- Collected approximately 40 shallow soil samples at locations evenly spaced throughout the Property at depths between 6 to 12 inches below ground surface (bgs) as well as collect two deeper soil samples (2 feet and 5 feet bgs) adjacent to a geophysical anomaly.
- Submitted select soil samples for laboratory analysis of potential contaminants of concern.
- Compared analytical results to the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels (CULs) for Unrestricted Land Use.
- Prepared this report presenting our findings, observations, conclusions, and recommendations.

SUBSURFACE INVESTIGATION AND SAMPLING

Private and Public Utility Locate

At least 48 hours prior to commencing our subsurface investigation, RGI contacted One-Call to locate known public underground utilities near, or on, the Property. Public underground utilities located included electric, natural gas, telecommunications, water, sewer, and cable.

RGI also retained a private utility locator to locate private water, natural gas, electric, and other metallic underground utility conduits potentially located in the proposed test probe locations.

GEOPHYSICAL SURVEY

RGI supervised a contractor to perform the geophysical survey in an effort to locate any existing abandoned or decommissioned-in-place UST(s), any remaining product or vent piping, or other underground metallic anomalies. The geophysical survey utilized a ground-penetrating radar (GPR) along with a supplemental electromagnetic unit (magnetometer) to traverse the Property on approximately 5- to 10-foot-line spacing.

The geophysical survey uncovered various abandoned electrical and water utility lines as well as several other small anomalies indicative of abandoned utilities or debris (not displaying the size or dimensions of a UST). While no anomalies were found which displayed a curved radargram signature suggestive of USTs or indicated disturbed subsurface materials suggestive of a UST excavation, one geophysical anomaly was detected on the northern portion of the Property measuring approximately 5.5 feet wide by 6 feet long. The anomaly displayed a flat top on the radargram at a depth of approximately 1.5 to 2 feet bgs which does not rule out a UST (tops may collapse, irregular tank, etc.). The anomaly did not appear to be metal. The Client authorized deeper sampling at test pits adjacent to that anomaly on January 5, 2022.

Subsurface Investigation

On January 10, 2022, soil samples were collected from shallow excavations at depths ranging from approximately 6 inches to 12 inches bgs at forty locations across the Property (SS1 through SS40).

Additional soil samples were collected at 2 feet bgs and 5 feet bgs adjacent to the geophysical anomaly (SS40 and SS41). The excavations were advanced using a track-hoe excavator. Groundwater was not encountered during this phase of work. Test probe locations are shown on Figure 2 and described below.

The soil samples were collected at locations evenly spaced throughout the Property, except for the western margin of the Property, which was sloped and heavily overgrown with brush/vegetation which prevented access, although samples were collected at the base of the vegetated areas. Sample SS40 and SS41 were placed on opposite ends of the geophysical anomaly mentioned above. The selected sample locations generally comply with screening criteria established in Ecology's standards regarding testing of soils related to the ASARCO Smelter Plume.

Subsurface Conditions

Soil conditions encountered were described using the Unified Soil Classification System (USCS). Soils from the surface to 0.5-1 foot bgs appeared to be fill soils with deeper material consisting of glacial till (a dense mixture of silt, sand, and gravel). The fill appeared to be moist to wet due to recent storm events with the till appearing moist. No groundwater was encountered at the deepest depth of 8 feet bgs.

Soil Sampling

Soil samples were collected upon completion of surface excavations to depths of 6 inches by the contracted excavator. Additionally, soil samples from approximately 12 inches bgs were collected at 25% of the sampling locations to be evaluated for lead and arsenic. As mentioned above, at locations SS40 and SS41, placed adjacent to the large geophysical anomaly, test pits were excavated to deeper depths in an effort to determine potential impacts from the suspected tank. At SS40, part of the anomaly was uncovered during this excavation. As indicated by the non-metallic response from the EM equipment, the anomaly appeared to be a concrete vault type feature and an opening in the upper corner of the vault revealed water which had collected inside. No odors were observed and inserting a portable gas photoionization detector (PID) into the vault revealed no detections of volatile gases (as would likely be present if petroleum had been stored inside). Sample pit SS40 was extended to a depth of approximately 8 feet bgs and no odors, staining, sheens, or elevated PID readings were observed. Samples were collected at SS40 at 0.5, 1, 2, and 5 feet bgs. The 5 foot depth appeared to be consistent with the bottom or slightly below the bottom of the concrete vault. At sample location SS41, upon reaching a depth of 2 feet bgs, a clay pipe was encountered and top broken as it was not identified by the geophysical equipment. The pipe appeared to contain water. None of the contents of the pipe or vault appeared to have escaped those features at the locations and depths observed. A sample was collected below the pipe however no deeper excavation occurred in that area. No elevated PID readings, odors, sheens, or discolorations were observed at any of the soil sample locations.

Sampling Protocols

All samples were collected in accordance with our standard operating and decontamination procedures. Samples were placed in preconditioned, sterilized containers provided by an Ecology-accredited analytical laboratory. If soil samples were collected for analysis of VOCs, they were collected using the Environmental Protection Agency's Method 5035 sampling method. The samples were placed in a chilled cooler throughout the field program, with all subsequent transportation and transfer accomplished in strict accordance with RGI's chain-of-custody procedures. Analytical test certificates, including quality control, data, and chain-of-custody documentation for all samples submitted to the analytical testing laboratory by RGI as part of this Phase II are included in Appendix A. All soil sample locations were backfilled with excavated material.

REGULATORY FRAMEWORK

Washington's hazardous waste cleanup law, the Model Toxics Control Act (Chapter 70.105D RCW), mandates the necessity for site cleanups to protect human health and the environment. The MTCA Cleanup Regulation (Chapter 173-340 WAC) defines the approach for establishing cleanup requirements for individual sites, including the establishment of cleanup standards and selection of cleanup actions.

The MTCA Cleanup Regulation provides three options for establishing generic and site-specific cleanup levels for soil and groundwater. Method A cleanup levels have been adopted for specific purposes and are intended to provide conservative cleanup levels for sites undergoing routine site characterization or cleanup actions or those sites with relatively few hazardous substances. Method B and C cleanup levels are set using a site risk assessment, which focus on the use of "reasonable maximum exposure" assumptions based on site-specific characteristics and toxicity of the contaminants of concern.

For purposes of comparison, analytical laboratory data for this project are compared to the *MTCA Method A Soil CULs for Unrestricted Land Uses*, summarized in the attached Table 1.

ANALYTICAL LABORATORY ANALYSIS

Soil samples were submitted to Friedman & Bruya, Inc. (FBI), an Ecology-accredited, third-party analytical laboratory for the requested analyses. The samples were analyzed for one or more of the following contaminants of concern:

- Total arsenic and lead using EPA 6020B (40 soil samples).
- Hydrocarbon identification (HCID) using qualitative Northwest Method NWTPH-HCID (two soil samples).

ANALYTICAL RESULTS

Analytical results and field screening data, summarized in the attached Table 1 and Figure 2, are discussed below. Copies of the analytical laboratory reports and associated sample chain-of-custody forms are included in Appendix A.

Soil Analytical Results

Various concentrations of arsenic and lead were reported in the soil samples analyzed; however, all concentrations were below the applicable MTCA Method A cleanup levels for arsenic and lead.

Testing of soils collected at a depth of 5 feet bgs at soil sample location 40 (SS40) at the approximate base of the concrete vault/geophysical anomaly feature as well soil sampled from 2 feet bgs at location 41 (SS41) at the base of the clay pipe adjacent to the geophysical anomaly revealed no detections of gasoline-, diesel-, or oil-range total petroleum hydrocarbons (TPH).

CONCLUSIONS & RECOMMENDATIONS

Based on our findings to-date, RGI concludes and/or recommends the following:

- Contamination above MTCA Method A CULs for the contaminants tested for was not encountered in the soil samples analyzed at the Property. Based on the laboratory results, it does not appear that the historic Tacoma Smelter Plume has impacted shallow soil at the Property at the locations and depths tested. No further actions associated with the historic Tacoma Smelter Plume are recommended at this time.

- Depending upon future use of the Property, if the geophysical anomaly/concrete vault feature identified on the northern portion of the Property is no longer needed, RGI would recommend that such feature be removed and the concrete material disposed of at an appropriate facility.
- While the geophysical survey did not identify the presence of a UST for petroleum storage, that does not necessarily mean that a UST may not still be somewhere beneath the Property. If during the course of future site development/construction activities, a UST is encountered, RGI recommends it be properly decommissioned and removed in accordance with the applicable city, county, and/or state requirements. As a component of such decommissioning activity, it would be RGI's further recommendation that soil and/or groundwater samples be obtained by a licensed professional from appropriate localities within such a tank excavation and submitted for laboratory analysis in an effort to ascertain whether or not subsurface environmental conditions at the time of removal are consistent with WDOE cleanup standards in effect at that time.


PROJECT LIMITATIONS

This report is the property of Shannon Shamseldin, Morgan Llewellyn, Llewellyn Real Estate and their authorized representatives or affiliates and was prepared in a manner consistent with the level of skill and care ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions. This report is intended for specific application to the Shamseldin Property located at 20841, 21001, and 21011 International Boulevard, SeaTac, King County, Washington. No warranty or guarantee, expressed or implied, is made.

The analyses and recommendations presented in this report are based upon data obtained from our review of available information at the time of preparing this report, test locations dug on the Property, or other noted data sources. The findings and conclusions of this study are based upon the results of laboratory testing of selected samples obtained from separated locations and conditions may vary between those localities or at other locations, depths, media, or date. Access to the western margin of the Property was prevented by dense scrub vegetation, preventing sample collection in those areas. Conditional changes may occur through time by natural or human-made process on this or adjacent properties. Additional changes may occur in legislative standards, which may or may not be applicable to this report. These changes, beyond RGI's control, may render this report invalid, partially or wholly. If variations appear evident, RGI should be requested to reevaluate the recommendations in this report.

Please contact the undersigned at (425) 415-0551 should you have any questions or need additional information.

Sincerely,
THE RILEY GROUP, INC.



Eric Zuern
Project Geologist



Megan Poysnick, LG
Senior Environmental Manager

Attachments:

Figure 1, Property Vicinity Map

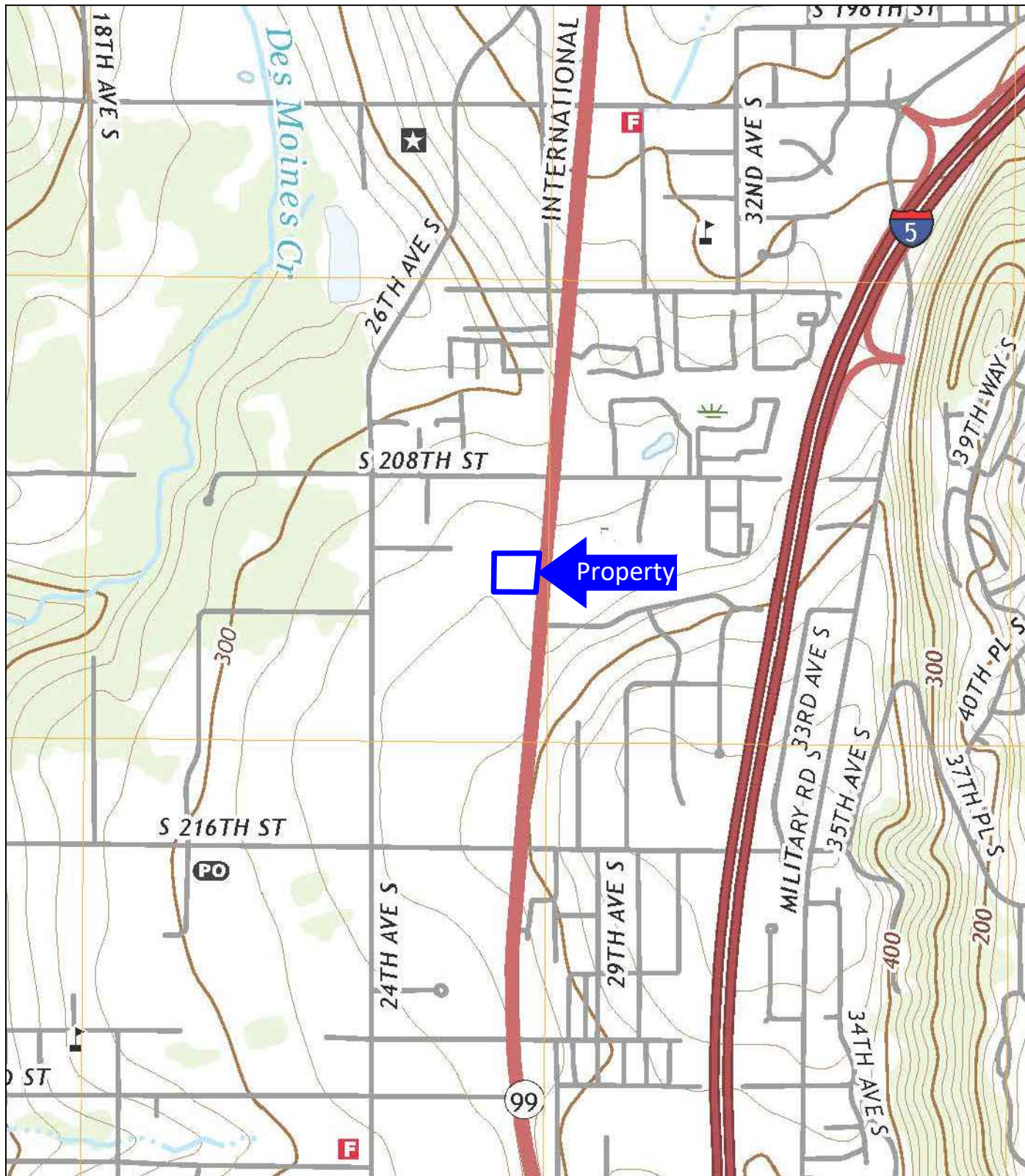
Figure 2, Property Representation with Soil Analytical Results

Table 1, Summary of Soil Sample Analytical Laboratory Results

Appendix A, Analytical Laboratory Report and Chains of Custody

Distribution:

Mr. Morgan Llewellyn, Llewellyn Real Estate (PDF)



USGS, 2020, Des Moines, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'



Corporate Office
17522 Bothell Way Northeast
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

Shamseldin Property

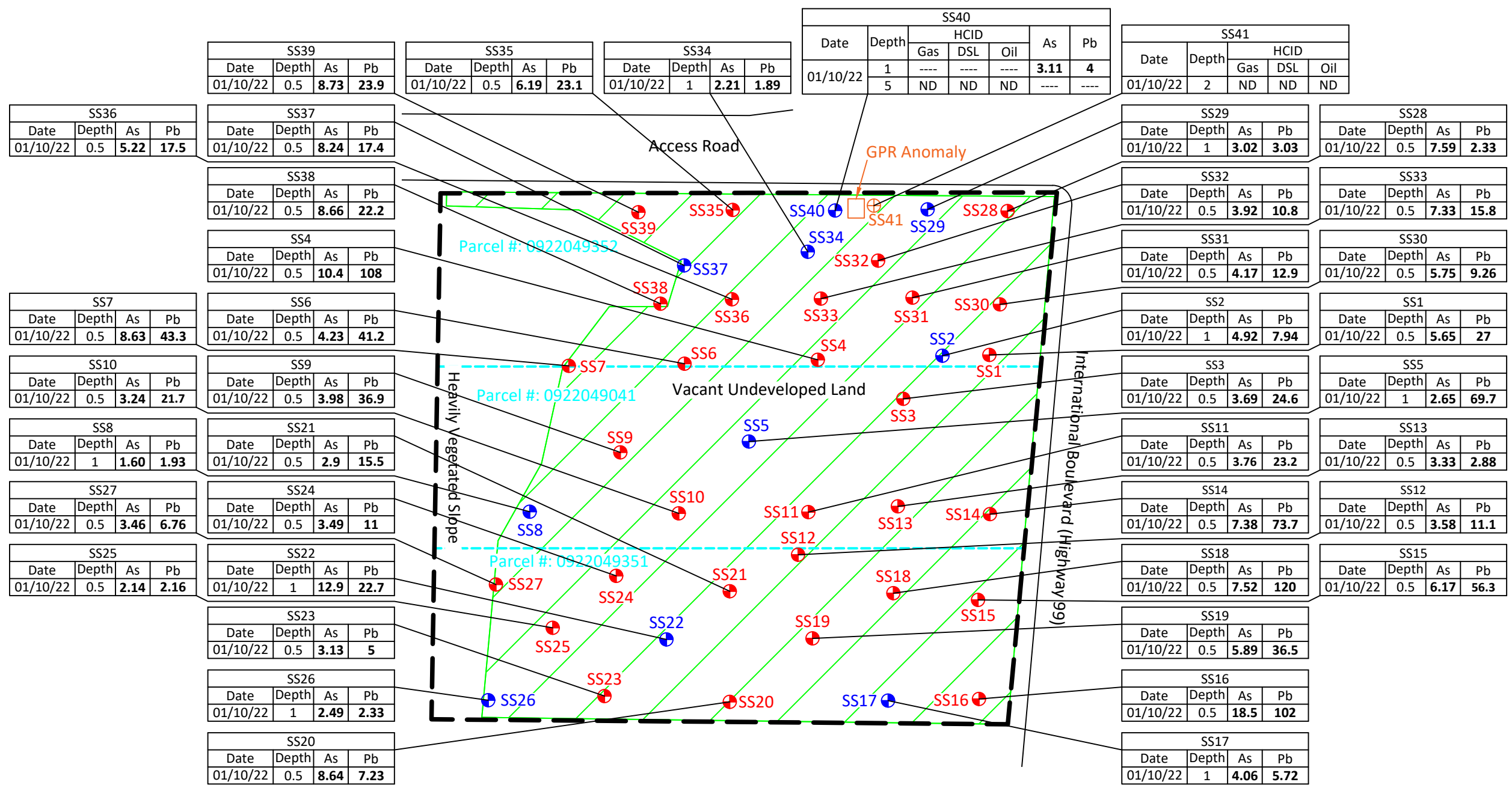
RGI Project Number:
2021-678-3

Property Vicinity Map

Figure 1

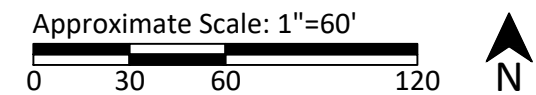
Date Drawn:
01/2022

Address: 20841, 21001, & 21011 International Boulevard, Seacac, Washington 98198



= Soil Analytical Results in mg/kg;
 Depth = Feet below ground surface
 HCID = Hydrocarbon identification
 Gas/DSL/Oil = Gasoline, diesel, oil total petroleum hydrocarbons (TPH)
 As, Pb = Total arsenic, lead
 ND = Not detected above laboratory detection limits
 Bold results indicate concentrations above laboratory detection limits
 Bold and highlighted results (if any) indicate concentrations above MTCA Soil Cleanup Levels

= Geophysical survey area
 = 6-inch sample depth by RGI, 01/10/22
 = 12-inch sample depth by RGI, 01/10/22
 = 2-foot sample depth by RGI, 01/10/22
 = Property boundary



Corporate Office
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Shamseldin Property		Figure 2
RGI Project Number: 2021-678-3	Property Representation with Soil Analytical Results	Date Drawn: 01/2022
Address: 20841, 21001, & 21011 International Boulevard, Seatac, Washington 98198		

**Table 1, Page 1 of 2. Summary of Soil Sample Analytical Laboratory Results
Shamseldin Property
20841, 21001, & 21011 International Boulevard, Seatac, Washington 98198
The Riley Group, Inc. Project No. 2021-678-3**

Sample Number	Sample Depth	Sample Date	HCID			Total Metals	
			Gasoline	Diesel	Heavy Oil	As	Pb
SS1-0.5	0.5	01/10/22	----	----	----	5.65	27
SS2-1	1	01/10/22	----	----	----	4.92	7.94
SS3-0.5	0.5	01/10/22	----	----	----	3.69	24.6
SS4-0.5	0.5	01/10/22	----	----	----	10.4	108
SS5-1	1	01/10/22	----	----	----	2.65	69.7
SS6-0.5	0.5	01/10/22	----	----	----	4.23	41.2
SS7-0.5	0.5	01/10/22	----	----	----	8.63	43.3
SS8-1	1	01/10/22	----	----	----	1.60	1.93
SS9-0.5	0.5	01/10/22	----	----	----	3.98	36.9
SS10-0.5	0.5	01/10/22	----	----	----	3.24	21.7
SS11-0.5	0.5	01/10/22	----	----	----	3.76	23.2
SS12-0.5	0.5	01/10/22	----	----	----	3.58	11.1
SS13-0.5	0.5	01/10/22	----	----	----	3.33	2.88
SS14-0.5	0.5	01/10/22	----	----	----	7.38	73.7
SS15-0.5	0.5	01/10/22	----	----	----	6.17	56.3
SS16-0.5	0.5	01/10/22	----	----	----	18.5	102
SS17-1	1	01/10/22	----	----	----	4.06	5.72
SS18-0.5	0.5	01/10/22	----	----	----	7.52	120
SS19-0.5	0.5	01/10/22	----	----	----	5.89	36.5
SS20-0.5	0.5	01/10/22	----	----	----	8.64	7.23
SS21-0.5	0.5	01/10/22	----	----	----	2.9	15.5
SS22-1	1	01/10/22	----	----	----	12.9	22.7
SS23-0.5	0.5	01/10/22	----	----	----	3.13	5
SS24-0.5	0.5	01/10/22	----	----	----	3.49	11
SS25-0.5	0.5	01/10/22	----	----	----	2.14	2.16
SS26-1	1	01/10/22	----	----	----	2.49	2.33
SS27-0.5	0.5	01/10/22	----	----	----	3.46	6.76
SS28-0.5	0.5	01/10/22	----	----	----	7.59	2.33
SS29-1	1	01/10/22	----	----	----	3.02	3.03
SS30-0.5	0.5	01/10/22	----	----	----	5.75	9.26
SS31-0.5	0.5	01/10/22	----	----	----	4.17	12.9
SS32-0.5	0.5	01/10/22	----	----	----	3.92	10.8
SS33-0.5	0.5	01/10/22	----	----	----	7.33	15.8
SS34-1	1	01/10/22	----	----	----	2.21	1.89
SS35-0.5	0.5	01/10/22	----	----	----	6.19	23.1
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses			100/30¹	2,000		20	250

Table 1, Page 2 of 2. Summary of Soil Sample Analytical Laboratory Results
Shamseldin Property
20841, 21001, & 21011 International Boulevard, Seatac, Washington 98198
The Riley Group, Inc. Project No. 2021-678-3

Sample Number	Sample Depth	Sample Date	HCID			Total Metals	
			Gasoline	Diesel	Heavy Oil	As	Pb
SS36-0.5	0.5	01/10/22	----	----	----	5.22	17.5
SS37-1	1	01/10/22	----	----	----	8.24	17.4
SS38-0.5	0.5	01/10/22	----	----	----	8.66	22.2
SS39-0.5	0.5	01/10/22	----	----	----	8.73	23.9
SS40-1	1	01/10/22	----	----	----	3.11	4
SS40-5	5	01/10/22	ND<20	ND<50	ND<250	----	----
SS41-2	2	01/10/22	ND<20	ND<50	ND<250	----	----
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses			100/30¹	2,000		20	250

Notes:

All results and detection limits are given in milligrams per kilogram (mg/kg); equivalent to parts per million (ppm).

Sample Depth = Soil sample depth interval in feet below ground surface (bgs).

Gasoline, Diesel, and Oil HCID (hydrocarbon identification) determined using Northwest Test Method NWTPH-HCID.

Total Metals (As = arsenic, Pb = lead) determined using EPA Method 6020B.

ND = Not detected at a concentration above the analytical detection limit.

---- = Not analyzed or not applicable.

Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses (WAC 173-340-900, Table 740-1).

¹ The higher cleanup level is allowed if no benzene is present in the gasoline mixture and the total concentration of toluene, ethylbenzene and xylenes is less than 1% of the gasoline mixture.

Bold results indicate concentrations (if any) above laboratory detection limits.

Bold and yellow highlighted results indicate concentrations (if any) that exceed MTCA Method A Soil Cleanup Levels.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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www.friedmanandbruya.com

January 19, 2022

Eric Zuern, Project Manager
The Riley Group, Inc.
17522 Bothell Way NE
Bothell, WA 98011

Dear Mr Zuern:

Included are the results from the testing of material submitted on January 10, 2022 from the Shamseldin 2021-678-3, F&BI 201094 project. There are 48 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Tait Russell
TRG0119R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 10, 2022 by Friedman & Bruya, Inc. from the The Riley Group Shamseldin 2021-678-3, F&BI 201094 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>The Riley Group</u>
201094 -01	SS1-0.5
201094 -02	SS2-0.5
201094 -03	SS2-1
201094 -04	SS3-0.5
201094 -05	SS4-0.5
201094 -06	SS5-0.5
201094 -07	SS5-1
201094 -08	SS6-0.5
201094 -09	SS7-0.5
201094 -10	SS8-0.5
201094 -11	SS8-1
201094 -12	SS9-0.5
201094 -13	SS10-0.5
201094 -14	SS11-0.5
201094 -15	SS12-0.5
201094 -16	SS13-0.5
201094 -17	SS14-0.5
201094 -18	SS15-0.5
201094 -19	SS16-0.5
201094 -20	SS17-0.5
201094 -21	SS17-1
201094 -22	SS18-0.5
201094 -23	SS19-0.5
201094 -24	SS20-0.5
201094 -25	SS21-0.5
201094 -26	SS22-0.5
201094 -27	SS22-1
201094 -28	SS23-0.5
201094 -29	SS24-0.5
201094 -30	SS25-0.5
201094 -31	SS26-0.5
201094 -32	SS26-1
201094 -33	SS27-0.5
201094 -34	SS28-0.5
201094 -35	SS29-0.5
201094 -36	SS29-1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE (continued)

<u>Laboratory ID</u>	<u>The Riley Group</u>
201094 -37	SS30-0.5
201094 -38	SS31-0.5
201094 -39	SS32-0.5
201094 -40	SS33-0.5
201094 -41	SS34-0.5
201094 -42	SS34-1
201094 -43	SS35-0.5
201094 -44	SS36-0.5
201094 -45	SS37-0.5
201094 -46	SS37-1
201094 -47	SS38-0.5
201094 -48	SS39-0.5
201094 -49	SS40-0.5
201094 -50	SS40-1
201094 -51	SS40-2
201094 -52	SS40-5
201094 -53	SS41-2

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/19/22
Date Received: 01/10/22
Project: Shamseldin 2021-678-3, F&BI 201094
Date Extracted: 01/11/22
Date Analyzed: 01/11/22

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES
FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID**

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

<u>Sample ID</u> Laboratory ID	<u>Gasoline</u>	<u>Diesel</u>	<u>Heavy Oil</u>	Surrogate (% Recovery) (Limit 56-165)
SS40-5 201094-52	ND	ND	ND	108
SS41-2 201094-53	ND	ND	ND	109
Method Blank 02-0085 MB2	ND	ND	ND	107

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS1-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-01
Date Analyzed:	01/11/22	Data File:	201094-01.059
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.65
Lead	27.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS2-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-03
Date Analyzed:	01/11/22	Data File:	201094-03.062
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.92
Lead	7.94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS3-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-04
Date Analyzed:	01/11/22	Data File:	201094-04.063
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.69
Lead	24.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS4-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-05
Date Analyzed:	01/11/22	Data File:	201094-05.064
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	10.4
Lead	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS5-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-07
Date Analyzed:	01/11/22	Data File:	201094-07.065
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.65
Lead	69.7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS6-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-08
Date Analyzed:	01/11/22	Data File:	201094-08.066
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.23
Lead	41.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS7-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-09
Date Analyzed:	01/11/22	Data File:	201094-09.067
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.63
Lead	43.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS8-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-11
Date Analyzed:	01/11/22	Data File:	201094-11.068
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.60
Lead	1.93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS9-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-12
Date Analyzed:	01/11/22	Data File:	201094-12.071
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.98
Lead	36.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS10-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-13
Date Analyzed:	01/11/22	Data File:	201094-13.072
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.24
Lead	21.7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS11-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-14
Date Analyzed:	01/11/22	Data File:	201094-14.073
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	3.76
Lead	23.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS12-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-15
Date Analyzed:	01/11/22	Data File:	201094-15.074
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.58
Lead	11.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS13-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-16
Date Analyzed:	01/11/22	Data File:	201094-16.075
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.33
Lead	2.88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS14-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-17
Date Analyzed:	01/11/22	Data File:	201094-17.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.38
Lead	73.7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS15-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-18
Date Analyzed:	01/11/22	Data File:	201094-18.077
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	6.17
Lead	56.3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS16-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-19
Date Analyzed:	01/11/22	Data File:	201094-19.078
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	18.5
Lead	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS17-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-21
Date Analyzed:	01/11/22	Data File:	201094-21.079
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.06
Lead	5.72

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS18-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-22
Date Analyzed:	01/11/22	Data File:	201094-22.080
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.52
Lead	120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS19-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-23
Date Analyzed:	01/11/22	Data File:	201094-23.083
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.89
Lead	36.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS20-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-24
Date Analyzed:	01/11/22	Data File:	201094-24.084
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.64
Lead	7.23

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS21-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-25
Date Analyzed:	01/11/22	Data File:	201094-25.085
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.90
Lead	15.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS22-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-27
Date Analyzed:	01/11/22	Data File:	201094-27.088
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	12.9
Lead	22.7

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS23-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-28
Date Analyzed:	01/11/22	Data File:	201094-28.089
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.13
Lead	5.00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS24-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-29
Date Analyzed:	01/11/22	Data File:	201094-29.090
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.49
Lead	11.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS25-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-30
Date Analyzed:	01/11/22	Data File:	201094-30.091
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.14
Lead	2.16

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS26-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-32
Date Analyzed:	01/11/22	Data File:	201094-32.092
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.49
Lead	2.33

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS27-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-33
Date Analyzed:	01/11/22	Data File:	201094-33.139
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.46
Lead	6.76

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS28-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-34
Date Analyzed:	01/11/22	Data File:	201094-34.143
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.59
Lead	2.33

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS29-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-36
Date Analyzed:	01/11/22	Data File:	201094-36.144
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.02
Lead	3.03

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS30-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-37
Date Analyzed:	01/11/22	Data File:	201094-37.145
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
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Arsenic	5.75
Lead	9.26

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS31-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-38
Date Analyzed:	01/11/22	Data File:	201094-38.146
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	4.17
Lead	12.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS32-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-39
Date Analyzed:	01/11/22	Data File:	201094-39.147
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.92
Lead	10.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS33-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-40
Date Analyzed:	01/11/22	Data File:	201094-40.148
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	7.33
Lead	15.8

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS34-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-42
Date Analyzed:	01/11/22	Data File:	201094-42.151
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.21
Lead	1.89

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS35-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-43
Date Analyzed:	01/11/22	Data File:	201094-43.152
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	6.19
Lead	23.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS36-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-44
Date Analyzed:	01/11/22	Data File:	201094-44.153
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	5.22
Lead	17.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS37-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-46
Date Analyzed:	01/11/22	Data File:	201094-46.154
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.24
Lead	17.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS38-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-47
Date Analyzed:	01/11/22	Data File:	201094-47.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.66
Lead	22.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS39-0.5	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-48
Date Analyzed:	01/11/22	Data File:	201094-48.156
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	8.73
Lead	23.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	SS40-1	Client:	The Riley Group
Date Received:	01/10/22	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	201094-50
Date Analyzed:	01/11/22	Data File:	201094-50.157
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.11
Lead	4.00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	I2-18 mb
Date Analyzed:	01/11/22	Data File:	I2-18 mb.052
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	The Riley Group
Date Received:	NA	Project:	Shamseldin 2021-678-3
Date Extracted:	01/11/22	Lab ID:	I2-19 mb
Date Analyzed:	01/11/22	Data File:	I2-19 mb.054
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/19/22

Date Received: 01/10/22

Project: Shamseldin 2021-678-3, F&BI 201094

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

Laboratory Code: 201094-01 (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	5.08	106	101	75-125	5
Lead	mg/kg (ppm)	50	24.3	109	102	75-125	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	105	80-120
Lead	mg/kg (ppm)	50	112	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/19/22

Date Received: 01/10/22

Project: Shamseldin 2021-678-3, F&BI 201094

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

Laboratory Code: 201094-25 (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	2.52	125	122	75-125	2
Lead	mg/kg (ppm)	50	13.5	118	120	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	91	80-120
Lead	mg/kg (ppm)	50	93	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht - The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

201094

SAMPLE CHAIN OF CUSTODY

01-10-22

BI4/VS1

Report To Eric Zuen
 Company RGI
 Address 17522 Bothell Way
 City, State, ZIP Bothell, WA
 Phone 425-415-0551 Email ezuen@rgei.com

SAMPLERS (signature) [Signature]
 PROJECT NAME Shamseldin PO# 2021-678-3
 REMARKS cc:trussell@rgei.com INVOICE TO RGI
 Project specific RLs? - Yes / No

Page # 1 of 6
 TURNAROUND TIME
 Standard turnaround
 RUSH
 Rush charges authorized by: _____
 SAMPLE DISPOSAL
 Archive samples
 Other _____
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Arsenic and Arsenic				
SS1-0.5	01	1/10	810	Soil	1									X			
SS2-0.5	02		815											ATR			
SS2-1	03		820											X			
SS3-0.5	04		825											X			
SS4-0.5	05		830											X			
SS5-0.5	06		835											ATR			
SS5-1	07		840											X			
SS6-0.5	08		845											X			
SS7-0.5	09		850											X			
SS8-0.5	10	↓	855	↓	↓									ATR			Samples received at 4:00

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>T. J. R.</u>	<u>RGI</u>	<u>1/10</u>	<u>1330</u>
Received by: <u>[Signature]</u>	<u>Eric Zuen</u>	<u>RGI</u>	<u>1/10/22</u>	<u>15:30</u>
Relinquished by: <u>[Signature]</u>	<u>Eric Zuen</u>	<u>RGI</u>	<u>1/10</u>	<u>14:39</u>
Received by: <u>[Signature]</u>	<u>Phan Phan</u>	<u>FCBT</u>	<u>1/10/22</u>	<u>1439</u>

201094

SAMPLE CHAIN OF CUSTODY

01-10-22

BI4/V81
2 of 6

Report To _____

Company RCI

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (signature) T. O. O.

PROJECT NAME _____ PO # 2021-678-3

REMARKS _____ INVOICE TO _____

Project specific RLs? - Yes / No _____

Page # 2 of 6

TURNAROUND TIME

Standard turnaround
 RUSH
Rush charges authorized by: _____

SAMPLE DISPOSAL

Archive samples
 Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Lead and Arsenic				
SS8-1	11	1/10	900	Soil	1										X		
SS9-0.5	12		920												X		
SS10-0.5	13		925												X		
SS11-0.5	14		925												X		
SS12-0.5	15		930												X		
SS13-0.5	16		935												X		
SS14-0.5	17		940												X		
SS15-0.5	18		945												X		
SS16-0.5	19		950												X		
SS17-0.5	20	↓	955	↓	↓										X		Samples received at 4 ⁰⁰

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>T. O. O.</u>	Tait R	RCI	1/10	1330
<u>Eric Ziem</u>	Eric Ziem	RCI	1/10	1338
<u>Eric Ziem</u>	Eric Ziem	RCI	1/10	14:39
<u>Nhan Phan</u>	Nhan Phan	FEBT	1/10/22	1439

201094

SAMPLE CHAIN OF CUSTODY

01-10-22

BIY/VS1

Page # 3 of 6

Report To _____

Company RGI

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (signature) <i>T. J. [Signature]</i>	
PROJECT NAME	PO # <u>2021-678-3</u>
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME	
<input checked="" type="checkbox"/> Standard turnaround	
<input type="checkbox"/> RUSH	
Rush charges authorized by: _____	
SAMPLE DISPOSAL	
<input type="checkbox"/> Archive samples	
<input type="checkbox"/> Other _____	
Default: Dispose after 30 days	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Lead and Arsenic			
SS17-1	21	1/10	1000	Soil	1										X	
SS18-0.5	22		1005												X	
SS19-0.5	23		1010												X	
SS20-0.5	24		1015												X	
SS21-0.5	25		1020												X	
SS22-0.5	26		1025													
SS22-1	27		1030												X	
SS23-0.5	28		1035												X	
SS24-0.5	29		1040												X	
SS25-0.5	30	↓	1045	✓	✓										X	Samples received at 4 °C

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>T. J. [Signature]</i>	T. J. [Signature]	RGI	1/10	1330
Received by: <i>Eric Ziem</i>	Eric Ziem	RGI	1/10	1330
Relinquished by: <i>Eric Ziem</i>	Eric Ziem	RGI	1/10	14:39
Received by: <i>Nhan Phan</i>	Nhan Phan	FBI	1/10/22	1439

201094

SAMPLE CHAIN OF CUSTODY

01-10-22

BI4/V81
Page # 4 of 6

Report To _____
 Company RGI
 Address _____
 City, State, ZIP _____
 Phone _____ Email _____

SAMPLERS (signature) Taitol

PROJECT NAME _____ PO # 2021-678-3

REMARKS _____ INVOICE TO _____

Project specific RLs? - Yes / No _____

TURNAROUND TIME

Standard turnaround
 RUSH
 Rush charges authorized by: _____

SAMPLE DISPOSAL

Archive samples
 Other _____
 Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Lead 920	Asbestos				
SS26-0.5	31	1/10	1050	Soil	1													
SS26-1	32		1055										X					
SS27-0.5	83		1100										X					
SS28-0.5	34		1105										X					
SS29-0.5	35		1110															
SS29-1	36		1115										X					
SS30-0.5	37		1120										X					
SS31-0.5	38		1125										X					
SS32-0.5	39		1130										X					
SS33-0.5	40		1135										X					Samples received at 4 °C

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>Taitol</u>	Taitol	RGI	1/10	1330
<u>Eric Ziem</u>	Eric Ziem	RGI	1/10/22	13:30
<u>Eric Ziem</u>	Eric Ziem	RGI	1/10	14:39
<u>Nhan Phan</u>	Nhan Phan	FEBT	1/10/22	1439

201094

SAMPLE CHAIN OF CUSTODY

01-10-22

BI4/VSI

Page # 5 of 6

Report To _____

Company RGI

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME	PO # <u>2021-678-3</u>
REMARKS	INVOICE TO

TURNAROUND TIME
<input checked="" type="checkbox"/> Standard Turnaround
<input type="checkbox"/> RUSH
Rush charges authorized by: _____
SAMPLE DISPOSAL
<input type="checkbox"/> Dispose after 30 days
<input type="checkbox"/> Archive Samples
<input type="checkbox"/> Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes				
						TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Lead and Arsenic							
SS34-0.5	41	1/10	1140	Soil	1															
SS34-1	42		1145																	
SS35-0.5	43		1150																	
SS36-0.5	44		1155																	
SS37-0.5	45		1200																	
SS37-1	46		1205																	
SS38-0.5	47		1210																	
SS39-0.5	48		1215																	
SS40-0.5	49		1220																	
SS40-1	50	↓	1225	↓	↓															Samples received at 4°C

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	Tara R	RGI	1/10	1330
<u>[Signature]</u>	Eric Luem	RGI	1/10/22	13:30
<u>[Signature]</u>	Eric Luem	RGI	1/10	14:39
<u>[Signature]</u>	Nhan Phan	FABT	1/10/22	1434

201094

SAMPLE CHAIN OF CUSTODY

01-10-22

BL4/US1

Report To _____

Company RGI

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (signature) [Signature]

PROJECT NAME _____ PO # 2021-678-3

REMARKS _____ INVOICE TO _____

Project specific RLs? - Yes / No _____

Page # 6 of 6

TURNAROUND TIME

Standard turnaround
 RUSH

Rush charges authorized by: _____

SAMPLE DISPOSAL

Archive samples
 Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082		HClD
SS40-2	51	1/10		Soil	1									
SS40-5	52A-E	↓		↓	5							X		
SS41-2	53 ↓	↓		↓	5							X		

Samples received at 4°C

Friedman & Bruya, Inc.
 3012 16th Avenue West
 Seattle, WA 98119-2029
 Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	Tait R	RGI	1/10	1330
Received by: <u>[Signature]</u>	Eric Ziem	RGI	1/10/22	13:30
Relinquished by: <u>[Signature]</u>	Eric Ziem	RGI	1/10	14:39
Received by: <u>[Signature]</u>	Pham Phan	FBI	1/10/22	1439