



SoundEarth Strategies, Inc.
2811 Fairview Avenue East, Suite 2000
Seattle, Washington 98102

December 3, 2020

Mr. John Guenther, LHG
Washington State Department of Ecology
Bellingham Field Office
913 Squalicum Way, Unit 101
Bellingham, Washington 98225

**SUBJECT: WESMAR COMPANY INC. SITE—YEAR 1 FOURTH QUARTERLY GROUNDWATER
MONITORING EVENT: THIRD QUARTER 2020
Former Wesmar Company, Inc.
(Ballard Blocks II Property)
1401 and 1451 Northwest 46th Street
Seattle, Washington
Project No. 1249-001-06**

Dear Mr. Guenther:

On behalf of Block at Ballard II, LLC, SoundEarth Strategies, Inc. (SoundEarth) prepared this subgrade drainage groundwater monitoring report to provide a summary of the results for the fourth long-term groundwater monitoring event performed for Year 1 during Third Quarter 2020 at the Former Wesmar Company, Inc. Site (the Site), also identified as Ballard Blocks II, in Seattle, Washington.

The Site is located at 1401 and 1451 Northwest 46th Street in Seattle, Washington. Operation and monitoring of the permanent subgrade drainage discharge water treatment system associated with the recently completed development of the Property began in October 2019.

The work was performed pursuant to the requirements of the October 20, 2017, First Amended Consent Decree (No. DE 10-2-21304-0 SEA; Consent Decree) between Block at Ballard II, LLC and the Washington State Department of Ecology (Ecology).

SUBGRADE DRAINAGE GOUNDWATER MONITORING

The approximate location of the subgrade groundwater collection sump and the arsenic water treatment system located in the basement of the parking garage on the Site are shown on Figure 1. Water monitoring analytical results pertaining to the subgrade discharge water and the permanent arsenic treatment system are summarized on Tables 1 and 2.

SAMPLING METHODOLOGY

The following section describes the sampling methodology employed during the subgrade drainage water quality monitoring activities and the permanent arsenic treatment system performance monitoring activities performed at the Site during Third Quarter 2020.

July Through September 2020 Permanent Arsenic Treatment System Performance Monitoring Events

Subgrade drainage pipes under the building on the Site drain water to a sump by gravity feed in the basement parking garage in the southeastern portion of the Site (Figure 1).

Monthly permanent arsenic treatment system performance monitoring activities were performed on July 21, August 28, and September 22, 2020.

During these monitoring events, water samples were collected from a pre-treatment influent water port (INF), located immediately ahead of the two arsenic-targeting media treatment vessels; a mid-treatment system monitoring port (MID), located between the two arsenic-targeting media treatment vessels; and a post-treatment effluent water monitoring port (EFF), located immediately downstream of the permanent arsenic-treatment system prior to discharge to the municipal stormwater system. The approximate locations of these three water monitoring ports (INF, MID, and EFF) are shown on the general design schematic of the treatment system in Attachment A.

Water samples were collected directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, the date and time sampled and project number; placed on ice in a cooler; and transported to Friedman & Bruya, Inc. (F&B) under standard chain-of-custody protocols for laboratory analysis.

Third Quarter 2020 Subgrade Drainage Groundwater Monitoring Event

A subgrade drainage groundwater sample was collected from the subgrade groundwater collection sump inlet pipes on August 28, 2020. A description of the sampling methodology is provided below.

A flow-weighted sample from the subgrade groundwater drainage system was collected directly from the sub-slab drainage outlet pipes located within the sump (Figure 1).

Outlet pipes draining into the subgrade groundwater collection sump from the subgrade drainage system include one pipe on the north side, a lower pipe on the east side, an upper pipe on the east side, and one pipe on the south side of the sump. During the monitoring event August 28, 2020, water was observed flowing from the pipe on the north side and the lower pipe on the east side of the subgrade groundwater collection sump. SoundEarth did not observe water flowing from the pipe on the south side or the upper pipe on the east side of the subgrade groundwater collection sump during this monitoring event.

Average flow rates were measured for each outlet pipe producing water from the sub-slab drainage system on August 28, 2020. The water volume collected for analysis was collected from each pipe proportionate to the flow rate of water for the pipe entering the sump. The total water flow rate into the subgrade sump during the monitoring event on August 28, 2020, was approximately 0.5 gallon per minute.

The water sample was collected directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, the date and time sampled, and project number; placed on ice in a cooler; and transported to F&B under standard chain-of-custody protocols for laboratory analysis.

Water samples submitted for laboratory analysis were analyzed by US Environmental Protection Agency Method 200.8 for total arsenic.

Water quality analytical results for the permanent arsenic treatment system performance monitoring activities are summarized below and on Table 1. Analytical results for total arsenic for groundwater samples collected from the subgrade drainage system are summarized below and on Table 2. Laboratory analytical reports are included in Attachment B.

July Through September 2020 Permanent Arsenic Treatment System Performance Monitoring Events

Total arsenic concentrations in post-treatment effluent water, (sample IDs: 1249_GW_EFF_2020721, 1249_GW_EFF_20200828 and 1249_GW_EFF_20200922) following treatment through the permanent arsenic treatment system, were not detected above the Washington State Model Toxics Control Act (MTCA) Method A cleanup level for groundwater of 5 micrograms per liter ($\mu\text{g/L}$) during treatment system performance monitoring events on July 21, August 28, and September 22, 2020.

Third Quarter 2020 Subgrade Drainage Groundwater Monitoring Event

The Third Quarter 2020 result for the flow-weighted water sample collected from the subgrade groundwater drainage system (sample ID: 1249_SSGW_20200828) on August 28, 2020, prior to treatment through the permanent arsenic treatment system, revealed a result of 23.9 $\mu\text{g/L}$, above the MTCA Method A cleanup level of 5 $\mu\text{g/L}$.

The post-treatment effluent water, collected on August 28, 2020, following treatment of the collected subgrade drainage water through the permanent arsenic treatment system (sample ID: 1249_GW_EFF_20200828) revealed a result of 3.26 $\mu\text{g/L}$, compliant with MTCA Method A cleanup level for arsenic in groundwater of 5 $\mu\text{g/L}$ for post-treatment effluent discharge water.

SUMMARY OF FINDINGS AND CONCLUSIONS

Relying on the results of analytic testing, the permanent arsenic treatment system is performing as designed and effectively treating concentrations of total arsenic in subgrade discharge water in compliance with the Consent Decree. Concentrations of arsenic in post-treatment subgrade discharge water were compliant with the MTCA Method A cleanup level of 5 $\mu\text{g/L}$.

Long-term groundwater monitoring is planned to continue as outlined in the Revised Cleanup Action Plan of the Consent Decree, with two events (semiannual monitoring) during the upcoming Year 2.

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our 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. We do not warrant and are 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. We do not warrant the use of segregated portions of this report.

Respectfully,
SoundEarth Strategies, Inc.


Chris G. Cass, LG
Senior Geologist


CHRIS G. CASS

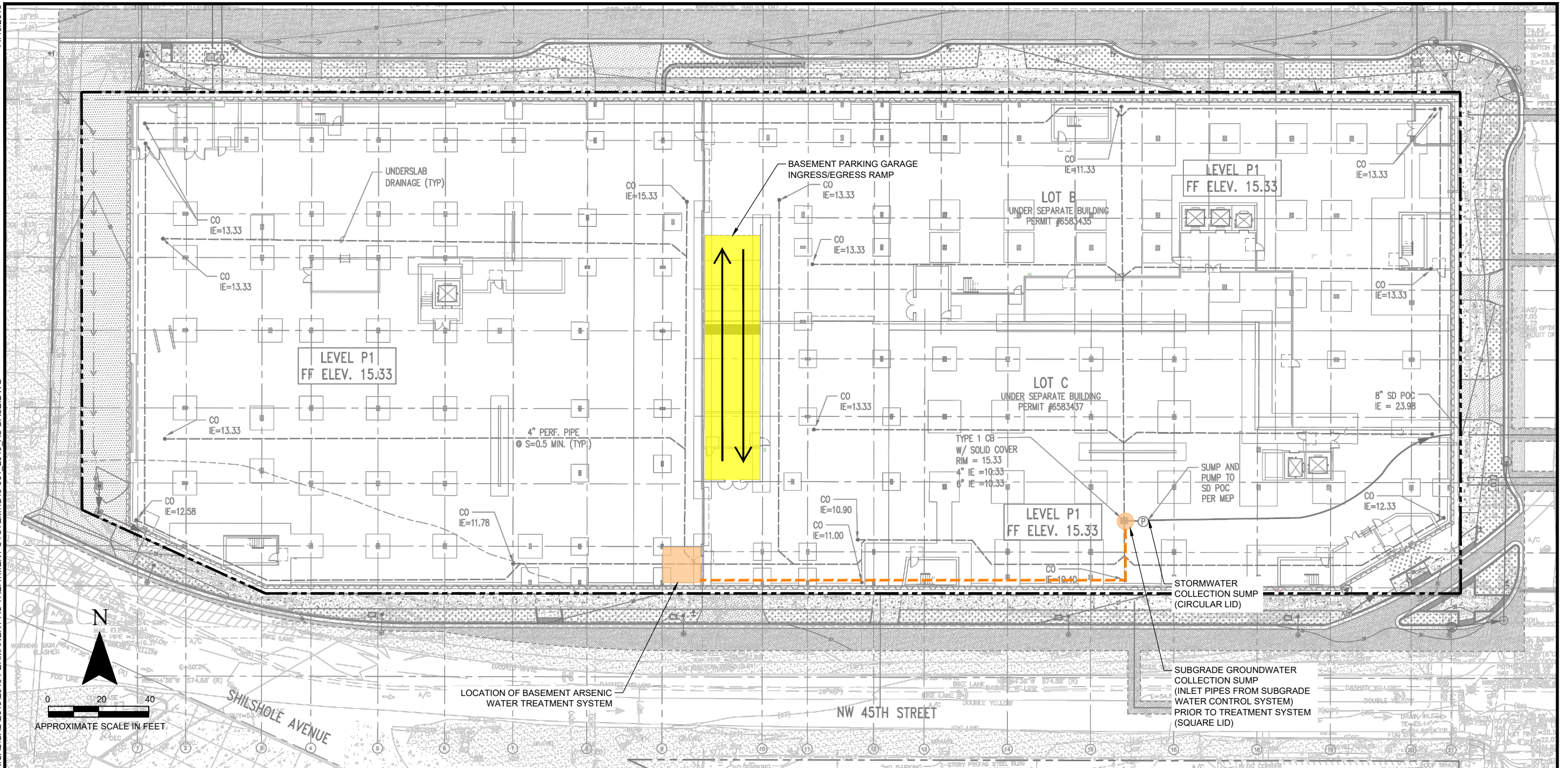

Chris M. Carter
Managing Principal

Attachments: Figure 1, Arsenic Treatment System Basement Location Map
Table 1, Summary of Influent, Mid-Treatment, and Effluent Water Analytical Results for Total Arsenic
Table 2, Summary of Groundwater Analytical Results for Raw Pre-Treatment Subgrade Water Control System Water
A, Basic Conceptual Drawing of Permanent Arsenic Treatment System
B, Laboratory Analytical Reports
Friedman & Bruya, Inc. #007360
Friedman & Bruya, Inc. #009013
Friedman & Bruya, Inc. #009014
Friedman & Bruya, Inc. #009422

cc: Eric Silvers, Regency Centers Corporation

JSL/CGC:dnm

FIGURE



NOTES:
BASEMAP PROVIDED BY
WEBER THOMPSON/KPFF, 2018.

FORMER WESMAR COMPANY, INC.
(BALLARD BLOCKS II PROPERTY)
1401 AND 1451
NORTHWEST 46TH STREET
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #1249-001

FIGURE 1
ARSENIC TREATMENT SYSTEM
BASEMENT LOCATION MAP

TABLES



Table 1
Summary of Influent, Mid-Treatment, and Effluent Water Analytical Results for Total Arsenic
Ballard Blocks II
1401 and 1451 Northwest 46th Street
Seattle, Washington

Sample IDs	Date Sampled	Pre-Treatment Influent Water Total Arsenic Analytical Results ⁽¹⁾ (micrograms per liter)	Mid-Treatment System Total Arsenic Analytical Results ⁽¹⁾ (micrograms per liter)	Treated Effluent Water Total Arsenic Analytical Results ⁽¹⁾ (micrograms per liter)
Permanent Arsenic Treatment System Maintenance Water Quality Monitoring Results				
1249_GW_INF/MID/EFF_20191121	11/21/19	9.58	2.43	<1
1249_GW_INF/MID/EFF_20191226	12/26/19	9.25	3.31	<1
1249_GW_INF/MID/EFF_20200123	01/23/20	12.50	7.21	<1
1249_GW_INF/MID/EFF_20200220	02/20/20	9.88	5.78	<1
1249_GW_INF/MID/EFF_20200319	03/19/20	8.83	4.04	<1
1249_GW_INF/MID/EFF_20200426	04/26/20	12.1	6.11	<1
1249_GW_INF/MID/EFF_20200523	05/23/20	15.4	8.0	<1
1249_GW_INF/MID/EFF_20200623	06/23/20	22.3	11.6	1.67
1249_GW_INF/MID/EFF_20200721	07/21/20	23.8	13.6	2.38
1249_GW_INF/MID/EFF_20200828	08/28/20	24.8	12.8	3.26
1249_GW_INF/MID/EFF_20200922	09/22/20	26.3	13.3	3.36
MTCA Cleanup Level for Groundwater		--	--	5 ⁽²⁾

NOTES:

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

⁽¹⁾Samples analyzed by EPA Method 200.8.

⁽²⁾MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

-- = not applicable

EPA = US Environmental Protection Agency

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code



Table 2
Summary of Groundwater Analytical Results
for Raw Pre-Treatment Subgrade Water Control System Water
Ballard Blocks II
1401 and 1451 Northwest 46th Street
Seattle, Washington

Sample ID	Date Sampled	Average Estimated Total Water Flow Rate Into Subgrade Sump (GPM)	Total Arsenic Analytical Results for Raw Subgrade Drainage Groundwater ⁽¹⁾ (micrograms per liter)
1249_SSGW_20191121	11/21/19	0.7	8.69
1249_SSGW_20200123	01/23/20	0.5	15.4
1249_SSGW_20200523	05/23/20	0.4	10.0
1249_SSGW_20200828	08/28/20	0.5	23.9
MTCA Cleanup Level for Groundwater			5⁽²⁾

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

⁽¹⁾ Samples analyzed by EPA Method 200.8.

⁽²⁾ MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

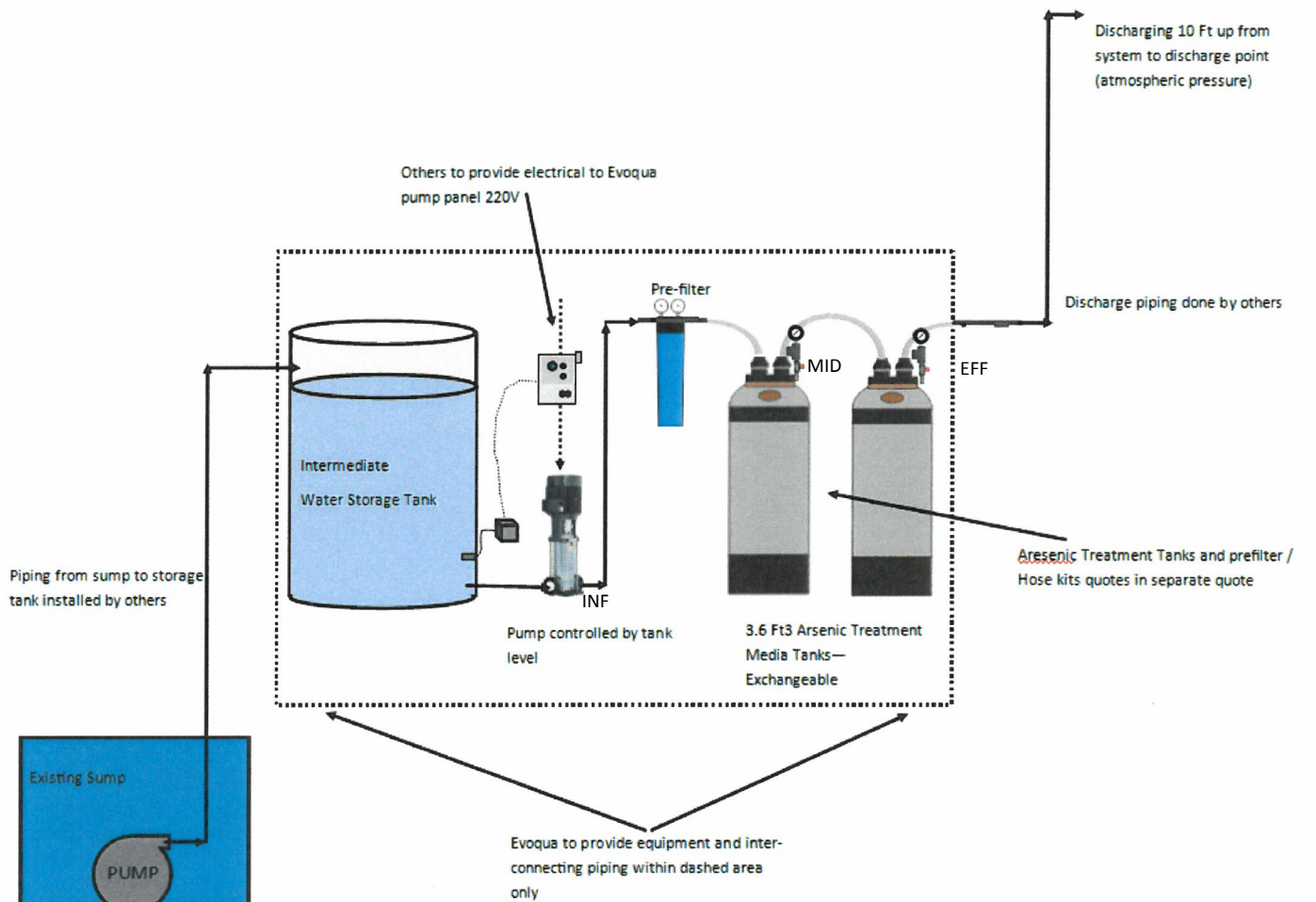
EPA = US Environmental Protection Agency

GPM = gallons per minute

MTCA = Washington State Model Toxics Control Act

WAC = Washington Administrative Code

ATTACHMENT A
BASIC CONCEPTUAL DRAWING OF PERMANENT ARSENIC TREATMENT
SYSTEM



LEGEND

INF - Pre-treatment System Monitoring Port
MID - Mid-treatment System Monitoring Port
EFF - Post-treatment Effluent Water Monitoring Port

ATTACHMENT B
LABORATORY ANALYTICAL REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

July 27, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on July 22, 2020 from the SOU_1249-001-06_ 20200722, F&BI 007360 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Jonathan Loeffler
SOU0727R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on July 22, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_ 20200722, F&BI 007360 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
007360 -01	1249_GW_INF_20200721
007360 -02	1249_GW_MID_20200721
007360 -03	1249_GW_EFF_20200721

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_INF_20200721	Client:	SoundEarth Strategies
Date Received:	07/22/20	Project:	SOU_1249-001-06_ 20200722
Date Extracted:	07/23/20	Lab ID:	007360-01
Date Analyzed:	07/23/20	Data File:	007360-01.060
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	23.8
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_MID_20200721	Client:	SoundEarth Strategies
Date Received:	07/22/20	Project:	SOU_1249-001-06_20200722
Date Extracted:	07/23/20	Lab ID:	007360-02
Date Analyzed:	07/23/20	Data File:	007360-02.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	13.6
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_EFF_20200721	Client:	SoundEarth Strategies
Date Received:	07/22/20	Project:	SOU_1249-001-06_20200722
Date Extracted:	07/23/20	Lab ID:	007360-03
Date Analyzed:	07/23/20	Data File:	007360-03.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	2.38
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_ 20200722
Date Extracted:	07/23/20	Lab ID:	I0-431 mb
Date Analyzed:	07/23/20	Data File:	I0-431 mb.050
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 07/27/20

Date Received: 07/22/20

Project: SOU_1249-001-06_ 20200722, F&BI 007360

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 007339-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	13.4	93	98	70-130	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	95	85-115

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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

September 8, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on September 1, 2020 from the SOU_1249-001-06_ 20200901, F&BI 009013 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Erika Vossbeck
SOU0908R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 1, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_ 20200901, F&BI 009013 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
009013 -01	1249_GW_INF_20200828
009013 -02	1249_GW_MID_20200828
009013 -03	1249_GW_EFF_20200828

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_INF_20200828	Client:	SoundEarth Strategies
Date Received:	09/01/20	Project:	SOU_1249-001-06_20200901, F&BI 009013
Date Extracted:	09/02/20	Lab ID:	009013-01
Date Analyzed:	09/02/20	Data File:	009013-01.190
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	24.8
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_MID_20200828	Client:	SoundEarth Strategies
Date Received:	09/01/20	Project:	SOU_1249-001-06_20200901, F&BI 009013
Date Extracted:	09/02/20	Lab ID:	009013-02
Date Analyzed:	09/02/20	Data File:	009013-02.191
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	12.8
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_EFF_20200828	Client:	SoundEarth Strategies
Date Received:	09/01/20	Project:	SOU_1249-001-06_20200901, F&BI 009013
Date Extracted:	09/02/20	Lab ID:	009013-03
Date Analyzed:	09/02/20	Data File:	009013-03.192
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	3.26
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_ 20200901, F&BI 009013
Date Extracted:	09/02/20	Lab ID:	I0-510 mb
Date Analyzed:	09/02/20	Data File:	I0-510 mb.111
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/08/20

Date Received: 09/01/20

Project: SOU_1249-001-06_ 20200901, F&BI 009013

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 008459-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	2.29	91	94	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	93	85-115

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.

SAMPLE CHAIN OF CUSTODY

ME 09-01-20

A12

009013

Send Report to Chris Cass; Chris Carter; Jonathan Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

[Signature]

PROJECT NAME/NO.

PO #

Ballard Blocks II Property; Arsenic
Treatment System Water Sampling

1249-001-06

REMARKS

Page # 1 of 1

TURNAROUND TIME

Standard (5 days)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED						Notes
								Total Arsenic (200.8)						
1249_GW_INF_20200828	Influent	N/A	01	8/28/20	1620	WATER	1	X						HNO ₃ preserved
1249_GW_MID_20200828	Mid-Treatment	N/A	02	8/28/20	1625	WATER	1	X						HNO ₃ preserved
1249_GW_EFF_20200828	Effluent	N/A	03	8/28/20	1630	WATER	1	X						HNO ₃ preserved

[Signature] 8/28/20

SoundEarth
Strategies

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <i>[Signature]</i>	JONATHAN LOEFFLER	SOUNDEARTH	9/1/20	1140
Received by: <i>[Signature]</i>	HONG NGUYEN	KBE		
Relinquished by:				
Received by:		Samples received at	4°C	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

September 8, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on September 1, 2020 from the SOU_1249-001-06_ 20200901, F&BI 009014 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Erika Vossbeck
SOU0908R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 1, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_ 20200901, F&BI 009014 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
009014 -01	1249_SSGW_20200828

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_SSGW_20200828	Client:	SoundEarth Strategies
Date Received:	09/01/20	Project:	SOU_1249-001-06_20200901, F&BI 009014
Date Extracted:	09/02/20	Lab ID:	009014-01
Date Analyzed:	09/02/20	Data File:	009014-01.193
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	23.9
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_ 20200901, F&BI 009014
Date Extracted:	09/02/20	Lab ID:	I0-510 mb
Date Analyzed:	09/02/20	Data File:	I0-510 mb.111
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/08/20

Date Received: 09/01/20

Project: SOU_1249-001-06_ 20200901, F&BI 009014

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 008459-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	2.29	91	94	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	93	85-115

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.

SAMPLE CHAIN OF CUSTODY

ME 09-01-20

ATZ

009014

Send Report to Chris Cass; Chris Carter; Jonathan Loeffler

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME/NO Ballard Blocks II Property – Subgrade Groundwater Monitoring	PO # 1249-001-06 / 210
REMARKS	

Page # <u>1</u> of <u>1</u>
TURNAROUND TIME <u>Standard (5 day)</u> RUSH
Rush charges authorized by: _____
SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED						Notes
								Total As (200.8)						
1249_SSGW_20200828	Sub slab GW	N/A	01	8/28/20	1530	WATER	1	X						HNO ₃ preserved

[Signature] 8/28/20



SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	JONATHAN LOEFFLER	SOUNDEARTH	9/1/20	1140
Received by: <u>[Signature]</u>	HONG NGUYEN	FOA	✓	✓
Relinquished by:				
Received by:		Samples received at	4 °C	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

September 29, 2020

Chris Cass, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cass:

Included are the results from the testing of material submitted on September 23, 2020 from the SOU_1249-001-06_ 20200923, F&BI 009422 project. There are 7 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Chris Carter, Jonathan Loeffler
SOU0929R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 23, 2020 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_1249-001-06_ 20200923, F&BI 009422 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>SoundEarth Strategies</u>
009422 -01	1249_GW_INF_20200922
009422 -02	1249_GW_MID_20200922
009422 -03	1249_GW_EFF_20200922

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_INF_20200922	Client:	SoundEarth Strategies
Date Received:	09/23/20	Project:	SOU_1249-001-06_20200923
Date Extracted:	09/24/20	Lab ID:	009422-01
Date Analyzed:	09/24/20	Data File:	009422-01.128
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	26.3
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_MID_20200922	Client:	SoundEarth Strategies
Date Received:	09/23/20	Project:	SOU_1249-001-06_20200923
Date Extracted:	09/24/20	Lab ID:	009422-02
Date Analyzed:	09/24/20	Data File:	009422-02.131
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	13.3
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	1249_GW_EFF_20200922	Client:	SoundEarth Strategies
Date Received:	09/23/20	Project:	SOU_1249-001-06_20200923
Date Extracted:	09/24/20	Lab ID:	009422-03
Date Analyzed:	09/24/20	Data File:	009422-03.132
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	3.36
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_1249-001-06_ 20200923
Date Extracted:	09/24/20	Lab ID:	I0-573 mb
Date Analyzed:	09/25/20	Data File:	I0-573 mb.039
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/29/20

Date Received: 09/23/20

Project: SOU_1249-001-06_ 20200923, F&BI 009422

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 009422-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	26.3	111	114	70-130	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	89	85-115

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.

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f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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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.

009422

SAMPLE CHAIN OF CUSTODY

ME 09/23/20

A13

Send Report to Chris Cass; Chris Carter; Jonathan LoefflerCompany SoundEarth Strategies, Inc.Address 2811 Fairview Avenue E, Suite 2000City, State, ZIP Seattle, Washington 98102Phone # 206-306-1900 Fax # 206-306-1907SAMPLERS (signature) [Signature]Page # 1 of 1PROJECT NAME/NO. Ballard Blocks II Property; Arsenic Treatment System Water Sampling

PO #

1249-001-06

REMARKS

TURNAROUND TIME

Standard (5 days)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED					Notes
								Total Arsenic (200.8)					
1249_GW_INF_20200922	Influent	N/A	01	9/22/20	1730	WATER	1	X					HNO ₃ preserved
1249_GW_MID_20200922	Mid-Treatment	N/A	02	9/22/20	1740	WATER	1	X					HNO ₃ preserved
1249_GW_EFF_20200922	Effluent	N/A	03	9/22/20	1750	WATER	1	X					HNO ₃ preserved

JAL 9/22/20

SoundEarth
Strategies

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	JONATHAN LOEFFLER	SOUNDEARTH	9/23/20	1410
Received by: <u>[Signature]</u>	Nhan Phan	FEBI	9/23/20	1410
Relinquished by:				
Received by:		Samples received at	4 °C	