Aspect
A Geosyntec Company

TRANSMITTAL

Project No.: 130046

June 10, 2024

Attn:	Thomas Middleton, Washington State Department of Ecology Sophia Petro, Washington State Department of Health David Wayne Johnson, Jefferson County Department of Community Development	**Re:**	Olympic Water and Sewer, Inc. Year 5 (2024) Groundwater Results

We are sending the following via:

☐ Regular Mail	☒ E-Mail	☐ Hand Deliver
☐ Overnight Delivery	☐ Courier	☐ Client Pickup

Qty	Description
1	Table 1 – Groundwater Analytical Results
1	Figure 1 – Site Plan
1	Attachment 1 – Laboratory Analytical Report

Remarks: The Year 5 (2024) groundwater monitoring results for water supply wells Well #2 and Well #18 are tabulated in Table 1. Toluene was detected above the laboratory detection limit but below the Model Toxics Control Act (MTCA) Method A cleanup level in the sample collected from Well #18. Constituents were not detected above the laboratory detection limits in the sample collected from Well #2. The locations of the wells are shown on Figure 1.

cc:	Sarah Steffan, Raydient Susan Porto, Jefferson County Department of Public Health Emma Erickson, Jefferson County Department of Public Health Michael Dawson, Jefferson County Department of Public Health	**Sent by:**	Eric Maise, PE Project Engineer eric.maise@aspectconsulting.com

V:\130046 OPG Port Ludlow Property\Deliverables\Data Transmittals\Year 5 Transmittal\Year 5 (2024) Data Transmittal.docx

Table 1. Year 5 Groundwater Analytical Results

Project No. 130046, Port Ludlow, Washington

		Location	**W-2**	**W-18**
		Date	**05/08/2024**	**05/10/2024**
		Sample	**WELL #2-240508**	**WELL #18-240510**
		Notes		
Analyte	**Unit**	**MTCA Method A Cleanup Level**		
TPHs				
Gasoline-Range Organics	ug/L	800 | 1000	< 100 U	< 100 U
BTEX				
Benzene	ug/L	5	< 1 U	< 1 U
Toluene	ug/L	1000	< 1 U	**2.1**
Ethylbenzene	ug/L	700	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 3 U	< 3 U

Notes:

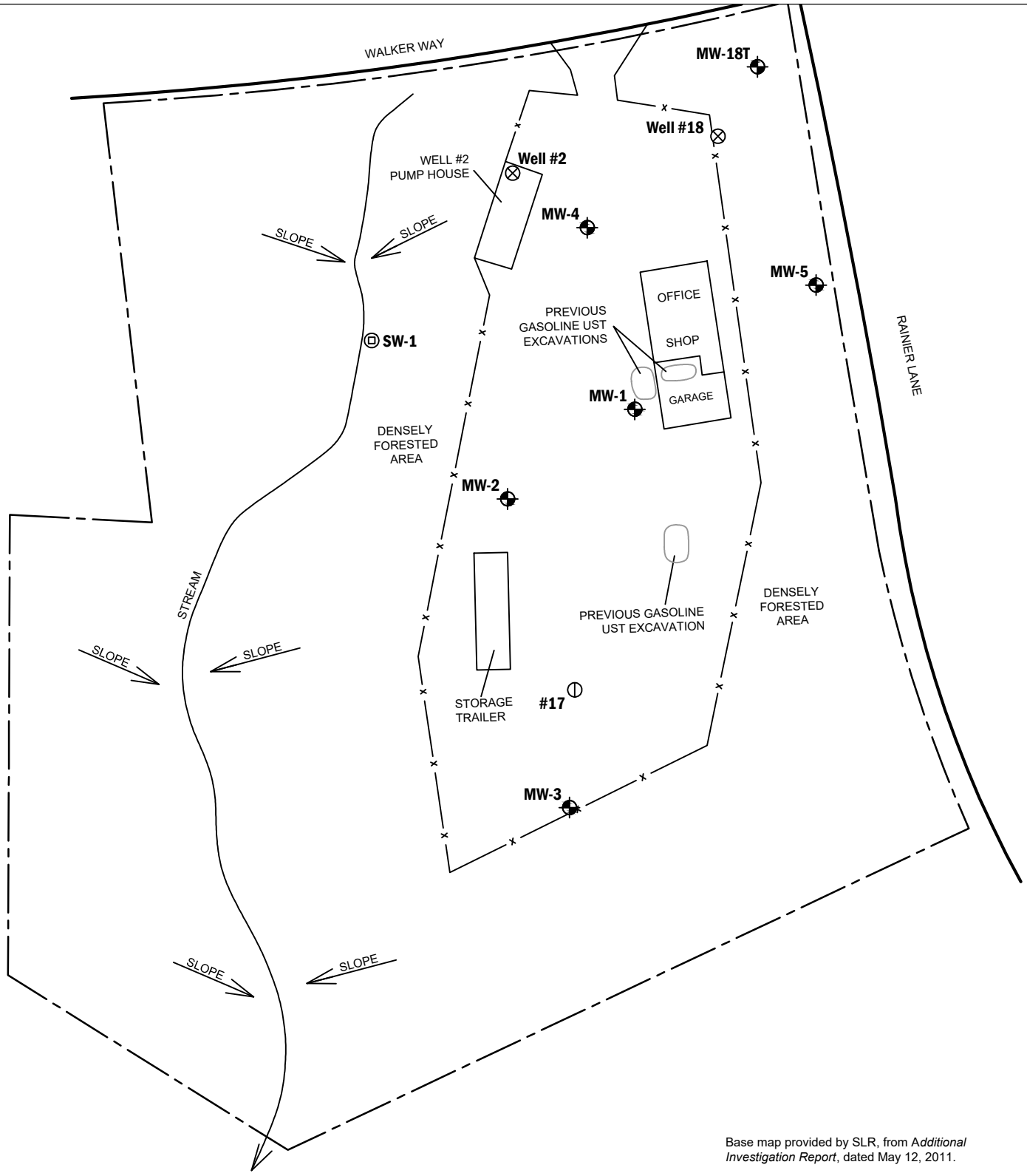
Bold - detected

Blue Shaded - Detected result exceeded screening level

U - Analyte not detected at or above Reporting Limit (RL) shown

µg/L - micrograms per liter

Gasoline Range Total Petroleum Hydrocarbons (TPH) are screened against a tighter value when benzene is present in the sample.



Base map provided by SLR, from A*dditional Investigation Report*, dated May 12, 2011.

This drawing is for conceptual purposes only. Actual locations may vary and not all structures are shown.

Legend

- Monitoring Well Location
- Stream Sample Location
- Water Supply Well Location
- Existing Casing Location

Site Plan

Year 5 Annual Groundwater Monitoring Report
Olympic Water & Sewer, Inc.
Port Ludlow, Washington

Aspect Consulting	May-2024	BY: DWU/SCC/CMV	FIGURE NO. 1
	PROJECT NO. 130046	REVISED BY: -	

ATTACHMENT 1

Laboratory Analytical Report

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.

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

May 21, 2024

Eric Maise, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Maise:

Included are the results from the testing of material submitted on May 10, 2024 from the OWSI AS130046, F&BI 405191 project. There are 10 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: Aspect Data, Carmen Tappero
ASP0521R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 10, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting OWSI AS130046, F&BI 405191 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
405191 -01	SW-1-240508
405191 -02	MW-5-240508
405191 -03	MW-4-240508
405191 -04	MW-3-240508
405191 -05	Well #2-240508
405191 -06	MW-18T-240508
405191 -07	Trip Blanks

Samples MW-5-240508, MW-4-240508, MW-3-240508, and MW-18T-240508 were sent to Alliance Technical Group for sulfate, nitrate, nitrite, alkalinity, and RSK-175 analyses. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 05/21/24
Date Received: 05/10/24
Project: OWSI AS130046, F&BI 405191
Date Extracted: 05/13/24
Date Analyzed: 05/13/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
SW-1-240508 405191-01	<1	<1	<1	<3	<100	69
MW-5-240508 405191-02	<1	<1	<1	<3	<100	67
MW-4-240508 405191-03	<1	<1	<1	<3	<100	67
MW-3-240508 405191-04	<1	<1	<1	<3	<100	65
Well #2-240508 405191-05	<1	<1	<1	<3	<100	74
MW-18T-240508 405191-06	<1	<1	<1	<3	<100	69
Trip Blanks 405191-07	<1	<1	<1	<3	<100	70
Method Blank 04-889 MB	<1	<1	<1	<3	<100	71

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5-240508	Client:	Aspect Consulting
Date Received:	05/10/24	Project:	OWSI AS130046, F&BI 405191
Date Extracted:	05/13/24	Lab ID:	405191-02
Date Analyzed:	05/13/24	Data File:	405191-02.133
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	4.5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-4-240508	Client:	Aspect Consulting
Date Received:	05/10/24	Project:	OWSI AS130046, F&BI 405191
Date Extracted:	05/13/24	Lab ID:	405191-03
Date Analyzed:	05/13/24	Data File:	405191-03.134
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	1.5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-3-240508	Client:	Aspect Consulting
Date Received:	05/10/24	Project:	OWSI AS130046, F&BI 405191
Date Extracted:	05/13/24	Lab ID:	405191-04
Date Analyzed:	05/13/24	Data File:	405191-04.135
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-18T-240508	Client:	Aspect Consulting
Date Received:	05/10/24	Project:	OWSI AS130046, F&BI 405191
Date Extracted:	05/13/24	Lab ID:	405191-06
Date Analyzed:	05/13/24	Data File:	405191-06.136
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	3.1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	OWSI AS130046, F&BI 405191
Date Extracted:	05/13/24	Lab ID:	I4-390 mb
Date Analyzed:	05/13/24	Data File:	I4-390 mb.074
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	<1

Date of Report: 05/21/24
Date Received: 05/10/24
Project: OWSI AS130046, F&BI 405191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 405191-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	96	70-130
Toluene	ug/L (ppb)	50	94	70-130
Ethylbenzene	ug/L (ppb)	50	96	70-130
Xylenes	ug/L (ppb)	150	93	70-130
Gasoline	ug/L (ppb)	1,000	100	70-130

Date of Report: 05/21/24
Date Received: 05/10/24
Project: OWSI AS130046, F&BI 405191

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 405182-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Manganese	ug/L (ppb)	20	164	88 b	60 b	75-125	38 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Manganese	ug/L (ppb)	20	95	80-120

Data Qualifiers & Definitions

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

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

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

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

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

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

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

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

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

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

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

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

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

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

405191 ↗ Carmen Tappero @ aspectconsulting.com

SAMPLE CHAIN OF CUSTODY

05/10/24 VW5/K3

Page # _____ of _____

Report To Eric Maise + Carmen Tappero

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP WA, Seattle, 98104

Phone _____ Email Eric.Maise @ aspectconsulting.com

SAMPLERS (*signature*) Carmen Tappero

PROJECT NAME: OW51

PO #: AS130046

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

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	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Sulfate EPA 300.0	Nitrate/Nitrite 352.2	diss. Methane by 175	diss. Mn	Alkalinity	Notes
SW-1-240508	01A-C	5/8/24	0830	W	3		X	X										
MW-5-240508	02A-I		1005		9								X	X	X	X	X	
MW-4-240508	03A-H		1430		9													
MW-3-240508	04A-I		1330		9													
Well #2-240508	05A-C		1220		3													GBTEX only per CT ME 05/13/24 Well#2
MW-18T-240508	06A-I	↓	1540	↓	9		↓	↓					↓	↓	↓	↓	↓	
Trip Blanks	07A-B	—	—	W	2		X	X										
								Samples received at 2										

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Carmen Tappero	Carmen Tappero	Aspect Consulting	5/9/24	1330
Received by:	ANHPHAN	E&B	05/10/24	10:05
Relinquished by:				
Received by:				

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

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 405191 CLIENT Asp INITIALS/ DATE: (NP) 05/10/24

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

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

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

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

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 2 days

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

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

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

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

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

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

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

Other comments (use a separate page if needed)
Sample MW-4-240508, received 8 containers and one 250 ml poly bottle F.F no Sample ID

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

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

ORIGIN ID:BFIA (561) 995-0900
KIM PEABODY

710 2ND AVENUE
SUITE 550
SEATTLE, WA 98104
UNITED STATES US

SHIP DATE: 09MAY24
ACTWGT: 40.00 LB
CAD: 259316664/INET4535
DIMS: 23x15x14 IN

BILL SENDER

TO **FRIEDMAN & BRUYEA**

5500 4TH AVE S

SEATTLE WA 98108
(206) 838-6591 REF: AS130046
INV: 025
PO: 002 DEPT: 3730

583J3/C137/9AE3

FedEx Express

J242924032901uv

FRI - 10 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 0201 **7763 1473 1132**

98108

85 BFIA

WA-US SEA

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 405191, E-191
Work Order Number: 2405207

May 17, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 4 sample(s) on 5/10/2024 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ion Chromatography by EPA 300.0
Total Alkalinity by SM 2320B
Total Organic Carbon by SM 5310C

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *05/17/2024*

CLIENT: Friedman & Bruya
Project: 405191
Work Order: 2405207

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2405207-001	MW-5-240508	05/08/2024 10:05 AM	05/10/2024 11:45 AM
2405207-002	MW-4-240508	05/08/2024 2:30 PM	05/10/2024 11:45 AM
2405207-003	MW-3-240508	05/08/2024 1:30 PM	05/10/2024 11:45 AM
2405207-004	MW-18T-240508	05/08/2024 3:40 PM	05/10/2024 11:45 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2405207**

Date: **5/17/2024**

CLIENT: Friedman & Bruya
Project: 405191

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 405191

Lab ID: 2405207-001 **Collection Date:** 5/8/2024 10:05:00 AM
Client Sample ID: **MW-5-240508** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R91779		Analyst: LB
Methane	ND	0.00500		mg/L	1	5/16/2024 12:54:00 PM
Ion Chromatography by EPA 300.0				Batch ID: 43868		Analyst: FG
Nitrate (as N)+Nitrite (as N)	ND	0.400		mg/L	1	5/11/2024 6:49:00 AM
Sulfate	5.33	1.00		mg/L	1	5/11/2024 6:49:00 AM
Total Organic Carbon by SM 5310C				Batch ID: R91680		Analyst: FG
Total Organic Carbon	ND	0.700		mg/L	1	5/15/2024 3:27:00 AM
Total Alkalinity by SM 2320B				Batch ID: R91787		Analyst: NR
Alkalinity, Total (As CaCO3)	113	2.50		mg/L	1	5/16/2024 4:50:02 PM

Lab ID: 2405207-002 **Collection Date:** 5/8/2024 2:30:00 PM
Client Sample ID: **MW-4-240508** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R91779		Analyst: LB
Methane	ND	0.00500		mg/L	1	5/16/2024 12:56:00 PM
Ion Chromatography by EPA 300.0				Batch ID: 43868		Analyst: FG
Nitrate (as N)+Nitrite (as N)	ND	0.400		mg/L	1	5/11/2024 7:43:00 AM
Sulfate	8.17	1.00		mg/L	1	5/11/2024 7:43:00 AM
Total Organic Carbon by SM 5310C				Batch ID: R91680		Analyst: FG
Total Organic Carbon	ND	0.700		mg/L	1	5/15/2024 5:10:00 AM
Total Alkalinity by SM 2320B				Batch ID: R91787		Analyst: NR
Alkalinity, Total (As CaCO3)	99.1	2.50		mg/L	1	5/16/2024 4:50:02 PM

CLIENT: Friedman & Bruya
Project: 405191

Lab ID: 2405207-003 **Collection Date:** 5/8/2024 1:30:00 PM
Client Sample ID: **MW-3-240508** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R91779		Analyst: LB
Methane	ND	0.00500		mg/L	1	5/16/2024 12:58:00 PM
Ion Chromatography by EPA 300.0				Batch ID: 43868		Analyst: FG
Nitrate (as N)+Nitrite (as N)	1.12	0.400		mg/L	1	5/11/2024 9:00:00 AM
Sulfate	17.4	1.00		mg/L	1	5/14/2024 3:55:00 AM
Total Organic Carbon by SM 5310C				Batch ID: R91680		Analyst: FG
Total Organic Carbon	0.719	0.700		mg/L	1	5/15/2024 5:32:00 AM
Total Alkalinity by SM 2320B				Batch ID: R91787		Analyst: NR
Alkalinity, Total (As CaCO3)	186	2.50		mg/L	1	5/16/2024 4:50:02 PM

Lab ID: 2405207-004 **Collection Date:** 5/8/2024 3:40:00 PM
Client Sample ID: **MW-18T-240508** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R91779		Analyst: LB
Methane	ND	0.00500		mg/L	1	5/16/2024 1:08:00 PM
Ion Chromatography by EPA 300.0				Batch ID: 43868		Analyst: FG
Nitrate (as N)+Nitrite (as N)	ND	0.400		mg/L	1	5/11/2024 9:26:00 AM
Sulfate	8.20	1.00		mg/L	1	5/11/2024 9:26:00 AM
Total Organic Carbon by SM 5310C				Batch ID: R91680		Analyst: FG
Total Organic Carbon	0.939	0.700		mg/L	1	5/15/2024 5:53:00 AM
Total Alkalinity by SM 2320B				Batch ID: R91787		Analyst: NR
Alkalinity, Total (As CaCO3)	145	2.50		mg/L	1	5/16/2024 4:50:02 PM

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID: **MB-R91787**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **5/16/2024**	RunNo: **91787**
Client ID: **MBLKW**	Batch ID: **R91787**		Analysis Date: **5/16/2024**	SeqNo: **1914978**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID: **LCS-R91787**	SampType: **LCS**	Units: **mg/L**	Prep Date: **5/16/2024**	RunNo: **91787**
Client ID: **LCSW**	Batch ID: **R91787**		Analysis Date: **5/16/2024**	SeqNo: **1914979**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	106	2.50	100.0	0	106	89.7	129.7				

Sample ID: **2405207-001ADUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **5/16/2024**	RunNo: **91787**
Client ID: **MW-5-240508**	Batch ID: **R91787**		Analysis Date: **5/16/2024**	SeqNo: **1914981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	112	2.50						112.9	1.07	20	

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **LCS-43868** SampType: **LCS** Units: **mg/L** Prep Date: **5/10/2024** RunNo: **91620**
Client ID: **LCSW** Batch ID: **43868** Analysis Date: **5/10/2024** SeqNo: **1911131**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.48	0.400	1.500	0	98.5	90	110				
Sulfate	3.55	1.00	3.750	0	94.7	90	110				

Sample ID: **MB-43868** SampType: **MBLK** Units: **mg/L** Prep Date: **5/10/2024** RunNo: **91620**
Client ID: **MBLKW** Batch ID: **43868** Analysis Date: **5/10/2024** SeqNo: **1911133**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	ND	0.400									
Sulfate	ND	1.00									

Sample ID: **2405211-003BDUP** SampType: **DUP** Units: **mg/L** Prep Date: **5/10/2024** RunNo: **91620**
Client ID: **BATCH** Batch ID: **43868** Analysis Date: **5/11/2024** SeqNo: **1911142**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	ND	0.400						0		20	
Sulfate	6.94	1.00						6.912	0.447	20	

Sample ID: **2405211-003BMS** SampType: **MS** Units: **mg/L** Prep Date: **5/10/2024** RunNo: **91620**
Client ID: **BATCH** Batch ID: **43868** Analysis Date: **5/11/2024** SeqNo: **1911143**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.48	0.400	1.500	0	98.7	80	120				
Sulfate	10.7	1.00	3.750	6.912	102	80	120				

Sample ID: **LCS-43905** SampType: **LCS** Units: **mg/L** Prep Date: **5/13/2024** RunNo: **91669**
Client ID: **LCSW** Batch ID: **43905** Analysis Date: **5/13/2024** SeqNo: **1912049**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.54	1.00	3.750	0	94.4	90	110				

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **MB-43905**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **5/13/2024**		RunNo: **91669**		
Client ID: **MBLKW**	Batch ID: **43905**					Analysis Date: **5/13/2024**		SeqNo: **1912051**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	1.00									

Sample ID: **2405118-001BDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **5/13/2024**		RunNo: **91669**		
Client ID: **BATCH**	Batch ID: **43905**					Analysis Date: **5/13/2024**		SeqNo: **1912057**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	13.1	1.00						13.28	1.14	20	

Sample ID: **2405118-001BMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **5/13/2024**		RunNo: **91669**		
Client ID: **BATCH**	Batch ID: **43905**					Analysis Date: **5/13/2024**		SeqNo: **1912058**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	17.1	1.00	3.750	13.28	102	80	120				

Sample ID: **2405118-001BMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **5/13/2024**		RunNo: **91669**		
Client ID: **BATCH**	Batch ID: **43905**					Analysis Date: **5/13/2024**		SeqNo: **1912059**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	16.9	1.00	3.750	13.28	95.2	80	120	17.10	1.46	20	

Sample ID: **2405200-002CDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **5/13/2024**		RunNo: **91669**		
Client ID: **BATCH**	Batch ID: **43905**					Analysis Date: **5/14/2024**		SeqNo: **1912068**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	5.69	1.00						5.716	0.456	20	

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **2405200-002CMS** SampType: **MS** Units: **mg/L** Prep Date: **5/13/2024** RunNo: **91669**
Client ID: **BATCH** Batch ID: **43905** Analysis Date: **5/14/2024** SeqNo: **1912069**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	9.26	1.00	3.750	5.716	94.5	80	120				

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **MB-91680**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **5/14/2024**	RunNo: **91680**
Client ID: **MBLKW**	Batch ID: **R91680**		Analysis Date: **5/14/2024**	SeqNo: **1912582**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.700									

Sample ID: **LCS-91680**	SampType: **LCS**	Units: **mg/L**	Prep Date: **5/14/2024**	RunNo: **91680**
Client ID: **LCSW**	Batch ID: **R91680**		Analysis Date: **5/14/2024**	SeqNo: **1912583**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	4.94	0.700	5.000	0	98.7	90.6	119				

Sample ID: **2405160-001BDUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **5/14/2024**	RunNo: **91680**
Client ID: **BATCH**	Batch ID: **R91680**		Analysis Date: **5/14/2024**	SeqNo: **1912585**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.46	0.700						1.466	0.616	20	

Sample ID: **2405160-001BMS**	SampType: **MS**	Units: **mg/L**	Prep Date: **5/14/2024**	RunNo: **91680**
Client ID: **BATCH**	Batch ID: **R91680**		Analysis Date: **5/14/2024**	SeqNo: **1912586**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.65	0.700	5.000	1.466	104	74.4	117				

Sample ID: **2405160-001BMSD**	SampType: **MSD**	Units: **mg/L**	Prep Date: **5/14/2024**	RunNo: **91680**
Client ID: **BATCH**	Batch ID: **R91680**		Analysis Date: **5/14/2024**	SeqNo: **1912587**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.29	0.700	5.000	1.466	96.5	74.4	117	6.654	5.64	30	

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **2405211-001DDUP** SampType: **DUP** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91680**
Client ID: **BATCH** Batch ID: **R91680** Analysis Date: **5/15/2024** SeqNo: **1912600**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	2.80	0.700						2.807	0.428	20	

Sample ID: **2405211-001DMS** SampType: **MS** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91680**
Client ID: **BATCH** Batch ID: **R91680** Analysis Date: **5/15/2024** SeqNo: **1912601**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	7.53	0.700	5.000	2.807	94.4	74.4	117				

Work Order: 2405207
CLIENT: Friedman & Bruya
Project: 405191

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID: **LCS-R91779** SampType: **LCS** Units: **ppmv** Prep Date: **5/16/2024** RunNo: **91779**
Client ID: **LCSW** Batch ID: **R91779** Analysis Date: **5/16/2024** SeqNo: **1914871**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	935	0.00500	1,000	0	93.5	73.6	124				

Sample ID: **MB-R91779** SampType: **MBLK** Units: **mg/L** Prep Date: **5/16/2024** RunNo: **91779**
Client ID: **MBLKW** Batch ID: **R91779** Analysis Date: **5/16/2024** SeqNo: **1914874**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00500									

Sample ID: **2405200-001AREP** SampType: **REP** Units: **mg/L** Prep Date: **5/16/2024** RunNo: **91779**
Client ID: **BATCH** Batch ID: **R91779** Analysis Date: **5/16/2024** SeqNo: **1914853**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.00855	0.00500						0.008822	3.12	30	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2405207
Logged by:	Morgan Wilson	Date Received:	5/10/2024 11:45:00 AM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☑ No ☐ NA ☐

Person Notified:	Michael Erdahl	Date:	5/10/2024
By Whom:	Morgan Wilson	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Nitrate/Nitrite Method		
Client Instructions:	Okay to proceed with 300		

17. Additional remarks:

Item Information

Item #	Temp ºC
Sample	5.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2405207

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER Fremont	
PROJECT NAME/NO. 405191	PO # E-191
REMARKS Aspect EDD	

Page # 1 of 1

TURNAROUND TIME
☒ Standard TAT
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Sulfate	Nitrate/Nitrite 352.2	RSK Methane	Alkalinity	TOC	Nitrate	Nitrite	Sulfate	Chloride		Notes
MW-5-240508		5/8/2024	1005	water		x	x	x	x	x						
MW-4-240508		5/8/2024	1430	water		x	x	x	x	x						
MW-3-240508		5/8/2024	1330	water		x	x	x	x	x						
~~Well#2-240508~~		~~5/8/2024~~	~~1220~~	water		~~x~~	~~x~~	~~x~~	~~x~~	~~x~~						No, ME
MW-18T-240508		5/8/2024	1540	water		x	x	x	x	x						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	5/10/24	1012
Received by:		Nathan Kaffle	ATG	5/10/24	1145
Relinquished by:					
Received by:					

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.

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

May 23, 2024

Eric Maise, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Maise:

Included are the results from the testing of material submitted on May 14, 2024 from the OWSI AS130046, F&BI 405236 project. There are 8 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Carmen Tappero
ASP0523R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 14, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting OWSI AS130046, F&BI 405236 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting
405236 -01	Well #18-240510
405236 -02	MW-1-240510
405236 -03	MW-2-240510
405236 -04	MW-X-240510
405236 -05	EB-240510
405236 -06	Trip Blank

Samples MW-1-240510 and MW-2-240510 were sent to Alliance for sulfate, nitrate, nitrite, alkalinity, and RSK-175 analyses. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 05/23/24
Date Received: 05/14/24
Project: OWSI AS130046, F&BI 405236
Date Extracted: 05/16/24
Date Analyzed: 05/16/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
Well #18-240510 405236-01	<1	2.1	<1	<3	<100	89
MW-1-240510 405236-02 1/10	84	53	250	50	3,000	96
MW-2-240510 405236-03 1/10	38	21	96	<30	1,200	91
MW-X-240510 405236-04 1/10	93	52	240	49	3,000	95
EB-240510 405236-05	<1	<1	<1	<3	<100	91
Trip Blank 405236-06	<1	<1	<1	<3	<100	93
Method Blank 04-895 MB	<1	<1	<1	<3	<100	91

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-1-240510	Client:	Aspect Consulting
Date Received:	05/14/24	Project:	OWSI AS130046, F&BI 405236
Date Extracted:	05/15/24	Lab ID:	405236-02
Date Analyzed:	05/16/24	Data File:	405236-02.257
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	710

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2-240510	Client:	Aspect Consulting
Date Received:	05/14/24	Project:	OWSI AS130046, F&BI 405236
Date Extracted:	05/15/24	Lab ID:	405236-03
Date Analyzed:	05/16/24	Data File:	405236-03.263
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	270

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting
Date Received:	NA	Project:	OWSI AS130046, F&BI 405236
Date Extracted:	05/15/24	Lab ID:	I4-397 mb
Date Analyzed:	05/15/24	Data File:	I4-397 mb.130
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Manganese	<1

Date of Report: 05/23/24
Date Received: 05/14/24
Project: OWSI AS130046, F&BI 405236

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 405236-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	2.1	2.1	0
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	98	70-130
Toluene	ug/L (ppb)	50	94	70-130
Ethylbenzene	ug/L (ppb)	50	98	70-130
Xylenes	ug/L (ppb)	150	87	70-130
Gasoline	ug/L (ppb)	1,000	91	70-130

Date of Report: 05/23/24
Date Received: 05/14/24
Project: OWSI AS130046, F&BI 405236

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 405241-03 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Manganese	ug/L (ppb)	20	2,060	532 b	1040 b	75-125	65 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Manganese	ug/L (ppb)	20	97	80-120

Data Qualifiers & Definitions

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

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

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

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

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

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

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

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

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

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

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

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

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

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

Carmen.Tappero@aspectconsulting.com

405236

SAMPLE CHAIN OF CUSTODY

05/14/24 K2/VW2

Page # 1 of 1

Report To Eric Maise & Carmen Tappero

Company Aspect

Address

City, State, ZIP

Phone Email Eric.Maise@aspectconsulting.com

SAMPLERS (signature)

PROJECT NAME: OW51

PO #: AS130046

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

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	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Sulfates 300.00	Nitrate/Nitrite 352.2	dissolved CH4 m 175	Diss. Mn	Alkalinity	Notes
Well #18-240510	01A-F	5/10/24	0835	W	3		X	X										
MW-1-240510	02A-I		1230		9		X	X					X	X	X	X	X	
MW-2-240510	03 ↓		1125		9		X	X					X	X	X	X	X	
MW-X-240510	04 A-C		0700		3		X	X										
EB-240510	05 ↓	↓	0900	↓	3		X	X										
Trip Blank	06 A-B	—	—	W	2		X	X										
							Samples received at 2 °C											

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Carmen Tappero	Aspect	5/13/24	1330
Received by:	ANH PHAN	FSB	05/14/24	08:51
Relinquished by:				
Received by:				

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

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 405236 CLIENT ASP INITIALS/ DATE: AP 05/14/24

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

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

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

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

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 4 days

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

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

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

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

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

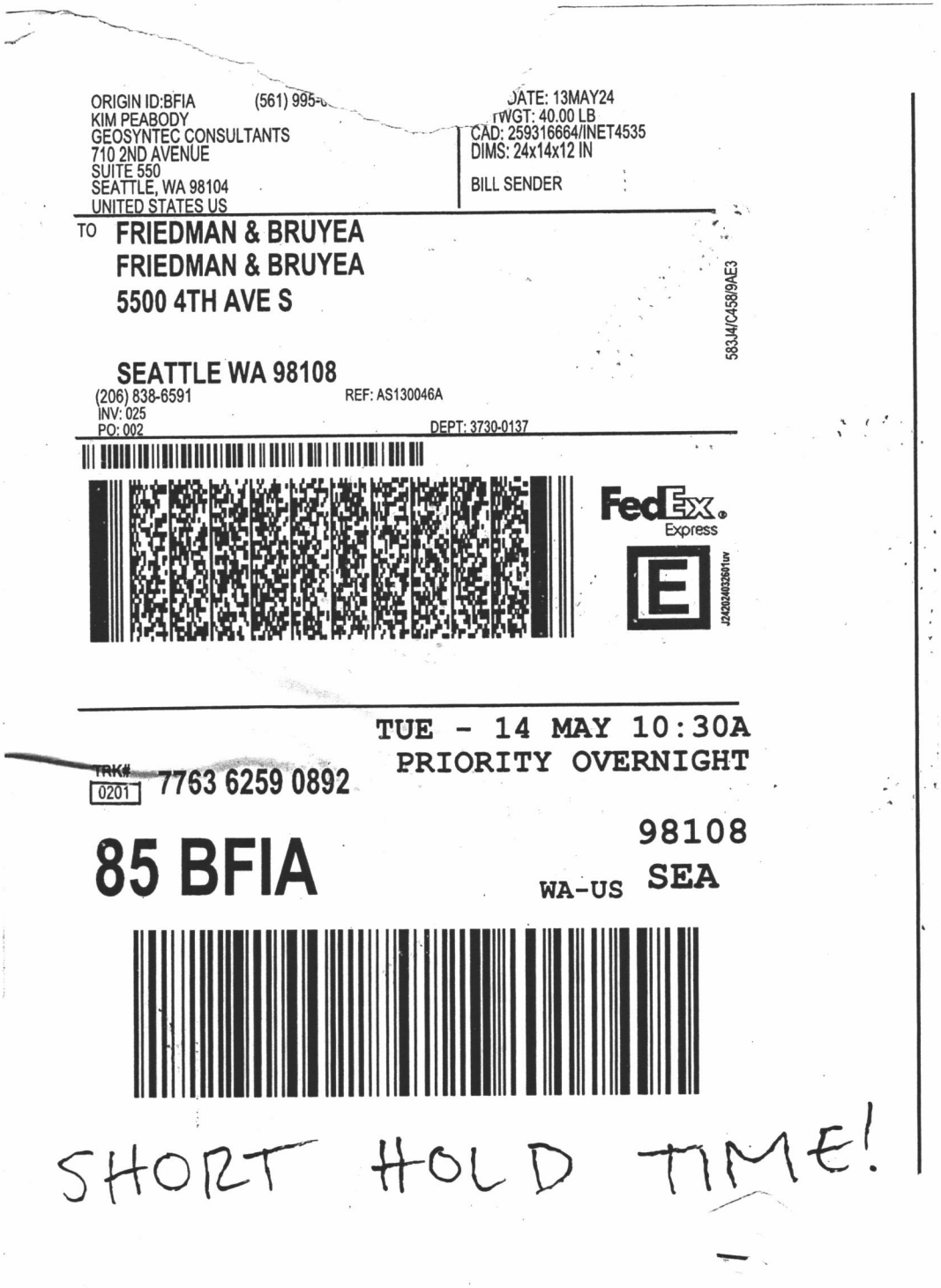
Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☒ Yes ☐ No		
Date Sampled	☒ Yes ☐ No		☐ Not on COC/label
Time Sampled	☒ Yes ☐ No		☐ Not on COC/label
# of Containers	☐ Yes ☒ No	Received 6 samples at lab for ID-01	☐ Not on COC/label
Relinquished	☒ Yes ☐ No		
Requested analysis	☒ Yes ☐ On Hold		

Other comments (use a separate page if needed)

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

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



ORIGIN ID:BFIA (561) 995-
KIM PEABODY
GEOSYNTEC CONSULTANTS
710 2ND AVENUE
SUITE 550
SEATTLE, WA 98104
UNITED STATES US

DATE: 13MAY24
WGT: 40.00 LB
CAD: 259316664/INET4535
DIMS: 24x14x12 IN

BILL SENDER

TO FRIEDMAN & BRUYEA
FRIEDMAN & BRUYEA
5500 4TH AVE S

SEATTLE WA 98108
(206) 838-6591 REF: AS130046A
INV: 025
PO: 002 DEPT: 3730-0137

583J4/C458/9AE3

FedEx Express

J242024032501uv

TUE - 14 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7763 6259 0892

98108
85 BFIA WA-US SEA

SHORT HOLD TIME!

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 405236, E-196
Work Order Number: 2405260

May 22, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 2 sample(s) on 5/14/2024 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ion Chromatography by EPA 300.0
Total Alkalinity by SM 2320B

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

Date: *05/22/2024*

CLIENT: Friedman & Bruya
Project: 405236
Work Order: 2405260

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2405260-001	MW-1-240510	05/10/2024 12:30 PM	05/14/2024 2:47 PM
2405260-002	MW-2-240510	05/10/2024 11:25 AM	05/14/2024 2:47 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Original

Case Narrative

WO#: **2405260**

Date: **5/22/2024**

CLIENT: Friedman & Bruya
Project: 405236

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2405260**
Date Reported: **5/22/2024**

CLIENT: Friedman & Bruya
Project: 405236

Lab ID: 2405260-001 **Collection Date:** 5/10/2024 12:30:00 PM
Client Sample ID: **MW-1-240510** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R91875		Analyst: CO
Methane	0.0652	0.00500		mg/L	1	5/20/2024 4:49:00 PM
Ethene	ND	0.0100		mg/L	1	5/20/2024 4:49:00 PM
Ethane	ND	0.0100		mg/L	1	5/20/2024 4:49:00 PM
Ion Chromatography by EPA 300.0				Batch ID: 43920		Analyst: FG
Nitrate (as N)+Nitrite (as N)	ND	0.400		mg/L	1	5/16/2024 3:27:00 AM
Sulfate	ND	1.00		mg/L	1	5/16/2024 3:27:00 AM
Total Alkalinity by SM 2320B				Batch ID: R91787		Analyst: NR
Alkalinity, Total (As CaCO3)	267	2.50		mg/L	1	5/16/2024 4:50:02 PM

Lab ID: 2405260-002 **Collection Date:** 5/10/2024 11:25:00 AM
Client Sample ID: **MW-2-240510** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R91875		Analyst: CO
Methane	ND	0.00500		mg/L	1	5/20/2024 5:13:00 PM
Ethene	ND	0.0100		mg/L	1	5/20/2024 5:13:00 PM
Ethane	ND	0.0100		mg/L	1	5/20/2024 5:13:00 PM
Ion Chromatography by EPA 300.0				Batch ID: 43920		Analyst: FG
Nitrate (as N)+Nitrite (as N)	ND	0.400		mg/L	1	5/16/2024 4:36:00 AM
Sulfate	13.3	1.00		mg/L	1	5/20/2024 8:27:00 PM
Total Alkalinity by SM 2320B				Batch ID: R91787		Analyst: NR
Alkalinity, Total (As CaCO3)	313	2.50		mg/L	1	5/16/2024 4:50:02 PM

Work Order: 2405260
CLIENT: Friedman & Bruya
Project: 405236

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID: **MB-R91787**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **5/16/2024**	RunNo: **91787**
Client ID: **MBLKW**	Batch ID: **R91787**		Analysis Date: **5/16/2024**	SeqNo: **1914978**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID: **LCS-R91787**	SampType: **LCS**	Units: **mg/L**	Prep Date: **5/16/2024**	RunNo: **91787**
Client ID: **LCSW**	Batch ID: **R91787**		Analysis Date: **5/16/2024**	SeqNo: **1914979**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	106	2.50	100.0	0	106	89.7	129.7				

Sample ID: **2405207-001ADUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **5/16/2024**	RunNo: **91787**
Client ID: **BATCH**	Batch ID: **R91787**		Analysis Date: **5/16/2024**	SeqNo: **1914981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	112	2.50						112.9	1.07	20	

Work Order: 2405260
CLIENT: Friedman & Bruya
Project: 405236

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **LCS-43920** SampType: **LCS** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91753**
Client ID: **LCSW** Batch ID: **43920** Analysis Date: **5/15/2024** SeqNo: **1913864**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.43	0.400	1.500	0	95.3	90	110				
Sulfate	3.55	1.00	3.750	0	94.7	90	110				

Sample ID: **MB-43920** SampType: **MBLK** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91753**
Client ID: **MBLKW** Batch ID: **43920** Analysis Date: **5/15/2024** SeqNo: **1913866**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	ND	0.400									
Sulfate	ND	1.00									

Sample ID: **2405239-001BDUP** SampType: **DUP** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91753**
Client ID: **BATCH** Batch ID: **43920** Analysis Date: **5/16/2024** SeqNo: **1913894**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	ND	0.400						0		20	
Sulfate	22.3	1.00						22.20	0.274	20	

Sample ID: **2405239-001BMS** SampType: **MS** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91753**
Client ID: **BATCH** Batch ID: **43920** Analysis Date: **5/16/2024** SeqNo: **1913895**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.15	0.400	1.500	0	76.7	80	120				S
Sulfate	25.6	1.00	3.750	22.20	89.4	80	120				

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **2405239-001BMSD** SampType: **MSD** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91753**
Client ID: **BATCH** Batch ID: **43920** Analysis Date: **5/16/2024** SeqNo: **1913896**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.08	0.400	1.500	0	71.9	80	120	1.151	6.55	20	S

Work Order: 2405260
CLIENT: Friedman & Bruya
Project: 405236

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **2405239-001BMSD** SampType: **MSD** Units: **mg/L** Prep Date: **5/15/2024** RunNo: **91753**
Client ID: **BATCH** Batch ID: **43920** Analysis Date: **5/16/2024** SeqNo: **1913896**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	25.6	1.00	3.750	22.20	91.1	80	120	25.55	0.246	20	

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **LCS-43971** SampType: **LCS** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **LCSW** Batch ID: **43971** Analysis Date: **5/20/2024** SeqNo: **1915956**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.45	0.400	1.500	0	96.5	90	110				
Sulfate	3.60	1.00	3.750	0	96.1	90	110				

Sample ID: **MB-43971** SampType: **MBLK** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **MBLKW** Batch ID: **43971** Analysis Date: **5/20/2024** SeqNo: **1915958**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	ND	0.400									
Sulfate	ND	1.00									

Sample ID: **2405335-001ADUP** SampType: **DUP** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **BATCH** Batch ID: **43971** Analysis Date: **5/21/2024** SeqNo: **1916592**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	ND	0.400						0		20	
Sulfate	20.0	1.00						19.88	0.577	20	

Sample ID: **2405335-001AMS** SampType: **MS** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **BATCH** Batch ID: **43971** Analysis Date: **5/21/2024** SeqNo: **1916593**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.47	0.400	1.500	0	98.0	80	120				
Sulfate	23.4	1.00	3.750	19.88	94.4	80	120				

Work Order: 2405260
CLIENT: Friedman & Bruya
Project: 405236

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: **2405335-001AMS** SampType: **MS** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **BATCH** Batch ID: **43971** Analysis Date: **5/21/2024** SeqNo: **1916593**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **2405335-001AMSD** SampType: **MSD** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **BATCH** Batch ID: **43971** Analysis Date: **5/21/2024** SeqNo: **1916594**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.46	0.400	1.500	0	97.1	80	120	1.470	0.957	20	
Sulfate	23.4	1.00	3.750	19.88	94.3	80	120	23.42	0.0171	20	

Sample ID: **2405287-006ADUP** SampType: **DUP** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **BATCH** Batch ID: **43971** Analysis Date: **5/21/2024** SeqNo: **1916598**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	1.76	0.400						1.843	4.61	20	
Sulfate	9.66	1.00						10.08	4.27	20	

Sample ID: **2405287-006AMS** SampType: **MS** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91835**
Client ID: **BATCH** Batch ID: **43971** Analysis Date: **5/21/2024** SeqNo: **1916599**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)+Nitrite (as N)	3.28	0.400	1.500	1.843	95.9	80	120				
Sulfate	13.6	1.00	3.750	10.08	94.4	80	120				

Work Order: 2405260
CLIENT: Friedman & Bruya
Project: 405236

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID: **LCS-R91875** SampType: **LCS** Units: **ppmv** Prep Date: **5/20/2024** RunNo: **91875**
Client ID: **LCSW** Batch ID: **R91875** Analysis Date: **5/20/2024** SeqNo: **1916889**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	925	0.00500	1,000	0	92.5	73.6	124				
Ethene	890	0.0100	1,000	0	89.0	76.3	122				
Ethane	889	0.0100	1,000	0	88.9	76.1	123				

Sample ID: **2405260-001BREP** SampType: **REP** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91875**
Client ID: **MW-1-240510** Batch ID: **R91875** Analysis Date: **5/20/2024** SeqNo: **1916876**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.0676	0.00500						0.06523	3.56	30	
Ethene	ND	0.0100						0		30	
Ethane	ND	0.0100						0		30	

Sample ID: **MB-R91875** SampType: **MBLK** Units: **mg/L** Prep Date: **5/20/2024** RunNo: **91875**
Client ID: **MBLKW** Batch ID: **R91875** Analysis Date: **5/20/2024** SeqNo: **1916886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00500									
Ethene	ND	0.0100									
Ethane	ND	0.0100									

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2405260
Logged by:	Morgan Wilson	Date Received:	5/14/2024 2:47:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp ºC
Sample	2.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2405260

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 5500 4th Ave S
City, State, ZIP Seattle, WA 98108
Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER	
Fremont	
PROJECT NAME/NO.	PO #
405236	E-196
REMARKS	
Aspect EDD	

TURNAROUND TIME
☒ Standard TAT
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

						ANALYSES REQUESTED										
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Sulfate	Nitrate+Nitrite	RSK Methane	Alkalinity							Notes
MW-1-240510		5/10/2024	1230	water		x	x	x	x							
MW-2-240510		5/10/2024	1125	water		x	x	x	x							

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	5/14/24	0909
Received by:		G Hein-Gipson	AT G	5/14/24	14:47
Relinquished by:					
Received by:					