Thomas Colligan

7700 20th Ave NE Seattle WA 98115

Tom Kirkman
SunnyDell Shooting Grounds
292 Dryke Road
Sequim WA 98382

Dear Tom,

This letter documents the sampling of three groundwater wells conducted in May of 2024 as a component of the Remedial Action Work plan of the Sunnydell Shooting Grounds final cleanup plan. This letter including all attachments, should be forwarded onto Andy Smith at the Department of Ecology.

Background

The Sunnydell Shooting Grounds underwent a Remedial Investigation and Feasibility Study (RI/FS) that was completed in 2012. Following this, a Remedial Action Work Plan was approved by Ecology that called for groundwater sampling of the existing three wells once every 5 years to ensure that the institutional controls that were implemented as part of the remedial action are still protective of groundwater quality. The wells were last sampled in 2018.

Work Conducted

The three existing wells (MW-1, MW-2, and MW-5) were sampled on May 20th 2024. Wells MW-1 and MW-2 are located downgradient of the upper pond. Well MW-5 is located directly downgradient of the lower pond. The well monuments and protective casings were all observed to be in excellent shape. The wells were sampled using a peristaltic pump attached to virgin polyethylene tubing set to approximately one foot off the well bottom. Wells were sampled using low-flow techniques (i.e., purged until field parameters stabilized). Field sampling notes are included in the attachments. All samples were clear upon collection. The samples were not field filtered nor lab filtered.

Results

Results are in the table below. As with all prior sampling, the results were all well less than the groundwater cleanup level of 15 µg/L.

Table 1- Results- TOTAL LEAD

Well	Location	Results (ug/kg)
MW-1	Upper Pond	0.634
MW-2	Upper Pond	ND (<0.3)
MW-5	Lower Pond	ND (<,0.3)

Attachments:

1) Lab Report
2) Field Sampling Notes

Yours Truly,

Thomas H. Colligan
LHG

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

Sunnydell Shooting Range
Tom Kirkman
292 Dryke Rd
Sequim, WA 98382

RE: Sunnydell Shooting Range,
Work Order Number: 2405348

May 28, 2024

Attention Tom Kirkman:

Fremont Analytical, Inc, an Alliance Technical Group company, received 3 sample(s) on 5/20/2024 for the analyses presented in the following report.

Total Metals by EPA 6020B

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

CC:
Tom Colligan

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: *05/28/2024*

CLIENT: Sunnydell Shooting Range
Project: Sunnydell Shooting Range
Work Order: 2405348

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2405348-001	MW-1	05/20/2024 12:11 PM	05/20/2024 4:24 PM
2405348-002	MW-2	05/20/2024 11:40 AM	05/20/2024 4:24 PM
2405348-003	MW-5	05/20/2024 10:47 AM	05/20/2024 4:24 PM

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

Case Narrative

WO#: **2405348**

Date: **5/28/2024**

CLIENT: Sunnydell Shooting Range
Project: Sunnydell Shooting Range

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: **2405348**
Date Reported: **5/28/2024**

CLIENT: Sunnydell Shooting Range
Project: Sunnydell Shooting Range

Lab ID: 2405348-001 **Collection Date:** 5/20/2024 12:11:00 PM
Client Sample ID: **MW-1** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 44045		Analyst: ME
Lead	0.634	0.300	B	µg/L	1	5/28/2024 4:17:00 PM

Lab ID: 2405348-002 **Collection Date:** 5/20/2024 11:40:00 AM
Client Sample ID: **MW-2** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 44045		Analyst: ME
Lead	ND	0.300		µg/L	1	5/28/2024 4:36:00 PM

Lab ID: 2405348-003 **Collection Date:** 5/20/2024 10:47:00 AM
Client Sample ID: **MW-5** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 44045		Analyst: ME
Lead	ND	0.300		µg/L	1	5/28/2024 4:39:00 PM

Alliance TECHNICAL GROUP

Work Order: 2405348
CLIENT: Sunnydell Shooting Range
Project: Sunnydell Shooting Range

QC SUMMARY REPORT

Total Metals by EPA 6020B

Sample ID: **MB-44045**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **5/28/2024**	RunNo: **92026**
Client ID: **MBLKW**	Batch ID: **44045**		Analysis Date: **5/28/2024**	SeqNo: **1920644**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.353	0.300									

Sample ID: **LCS-44045**	SampType: **LCS**	Units: **µg/L**	Prep Date: **5/28/2024**	RunNo: **92026**
Client ID: **LCSW**	Batch ID: **44045**		Analysis Date: **5/28/2024**	SeqNo: **1920645**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.5	0.300	50.00	0	101	80	120				

Sample ID: **2405348-001ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **5/28/2024**	RunNo: **92026**
Client ID: **MW-1**	Batch ID: **44045**		Analysis Date: **5/28/2024**	SeqNo: **1920647**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.658	0.300						0.6340	3.72	20	B

Sample ID: **2405348-001AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **5/28/2024**	RunNo: **92026**
Client ID: **MW-1**	Batch ID: **44045**		Analysis Date: **5/28/2024**	SeqNo: **1920649**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	51.1	0.300	50.00	0.6340	101	75	125				

Sample ID: **2405348-001AMSD**	SampType: **MSD**	Units: **µg/L**	Prep Date: **5/28/2024**	RunNo: **92026**
Client ID: **MW-1**	Batch ID: **44045**		Analysis Date: **5/28/2024**	SeqNo: **1920650**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.4	0.300	50.00	0.6340	97.5	75	125	51.15	3.47	20	

Sample Log-In Check List

Client Name:	SUNNYD	Work Order Number:	2405348
Logged by:	Morgan Wilson	Date Received:	5/20/2024 4:24:00 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 ☐
		Unknown prior to receipt.		
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 ☐
				HNO3
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:	Tom Colligan	Date:	5/21/2024
By Whom:	Morgan Wilson	Via:	☐ eMail ☑ Phone ☐ Fax ☐ In Person
Regarding:	Total vs Dissolved from bottle Orde		
Client Instructions:	Total, 6020 okay		

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	23.1

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

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 5-20-24 Page: 1 of: 1

Laboratory Project No (internal): 2405348

Project Name: Sunnydell Shooting Range

Special Remarks: — None —

Client: Sunny Dell Shooting Range

Project No:

Address: Dryke Road

Collected by: Thomas Colligan

City, State, Zip: Sequim WA 98382

Location: Sequim

Telephone: 425 922 7450

Report To (PM): Tom Colligan

Invoice to trkirkman@hotmail.com

Email(s): trkirkman@hotmail.com

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Technical Questions to Tom Colligan 206 276 5527

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	MW-1	5-20	12:11	W	1									Pb	T			
2	MW-2	5-20	11:40	W	1									Pb	T			
3	MW-5	5:20	10:47	W	1									Pb	T			
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Thomas Colligan	5-20-24	x	Nathan Hobbs	5/20/24 16:24
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x		4-24-24	x		

SUNNYDELL GROUNDWATER SAMPLING FIELD NOTE

BY: T. COLLILA

5-20-24

10:40 Sample Notes Sunnydell Well MW-5

N. Side of Lower POND - 3/4" PVC Well

Sampled w Peristaltic Pump Resin

Well Depth - 6' 6" FROM Top of 3/4" CASING

Purge Readings - 9.3°C

~~80.0 DO.~~

9.6 mg/L D.O.

0.017 COND.

-50 ORP

6.94 ph

Use Flo-Thru YSI Meter

Pre Calibrated by Field Env. Instruments - Ice Provided Calibration Sheet -

10:45 - 9.6° FINAL TEMP

6.9 ph.

10:58 Sample Collected - Clear

11:38 MW-2 Sample 11:42

Purge Parameters Temp 9.9° 9.8°

D.O. = 3.69

Cond = 0.27

ph = 6.71

11:42 collect Water - Clear - 43L

12:05 Sample MW-1 - Well close to Upper POND -

Start Field Parameters Temp 10.8°C

DO = 0.53 mg/L

0.14 $\frac{mS}{cm}$

-31 = ORP

ph = 6.51

12:12 Collect sample - MW-2 Temp = 10.8°

ph 2 6.51

PARM) STABLE AFTER 5 MINS PURGE

1:30 Left site FOR Fremont Analytical

FIELD ENVIRONMENTAL INSTRUMENTS, INC.
www.fieldenvironmental.com

301 Brushton Ave
Suite A
Pittsburgh, PA 15221
Toll Free (800) 393-4009
Local (412) 436-2600
Fax (412) 436-2616

YSI Pro Plus Calibration Certificate

Cal Standard	Lot #	Expiration	Pre-Cal Reading	Post-Cal Reading	Acceptable Range
PH 7 @ 25^{C}	8306447	7/11/2025	7.04	7.00	(6.86 - 7.14)
			pH mV value	-6.9	(0 mV +/- 50mV)
Cal Standard	Lot #	Expiration	Pre-Cal Reading	Post-Cal Reading	Acceptable Range
~~PH 4 @ 25^{C}~~	44030046	3/20/2026	4.03	4.00	(3.92 - 4.08)
			pH mV value	165.9	(158.1mV to 173.1mV)
Cal Standard	Lot #	Expiration	Pre-Cal Reading	Post-Cal Reading	Acceptable Range
PH 10 @ 25^{C}	8307297	8/2/2025	10.05	10.00	(9.8 - 10.20)
			pH mV value	-179.5	(-171.9mV to -186.9mV)
Cal Standard	Lot #	Expiration	Pre-Cal Reading	Post-Cal Reading	Acceptable Range
Conductivity	8403134	3/30/2026	1.338	1.409	(1.338 to 1.479)
			Cell Constant	4.7	(4.0 to 6.0)

Check Standard	Temp ©	Reading	Acceptable Range
ORP	21.8	220.0	(+/- 20mV from the solution mv value)
ORP Offset		n/a	(0 +/- 100mV)

	% Saturation	mg/L
Dissolved Oxygen	100.0	8.86

	mm Hg	Sensor Value	Acceptable Range
Barometer	760.0	4.7	(4.31 - 8.0)

Model	Pro Quatro
S/N	24B103713
Barcode	U120220X
Order #	551699

New DO Membrane: ○ Yes ◉ No

○ Black ○ Blue ◉ Yellow

Calibrated By: Noah Holaday

Date of Calibration: 5/16/2024

*Solutions provided by Reagents (800-732-8484)

Revision 2, 4/4/24

All calibrations performed by FEI conform to manufacturer's specifications. Please report any issues within 24 hours of receiving equipment.
All calibration solutions used are traceable to NIST. Additional documentation is available upon request.