

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 22, 2024

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Hanson BC 0-64N67W 1NESE (Backgrounds)

Work Order #2402287

Enclosed are the results of analyses for samples received by Summit Scientific on 02/15/24 13:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Ben Shrewsbury

Laboratory Manager



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG01@5.0'	2402287-01	Soil	02/15/24 00:00	02/15/24 13:25
BKG01@4.0'	2402287-02	Soil	02/15/24 00:00	02/15/24 13:25
BKG02@5.0'	2402287-03	Soil	02/15/24 00:00	02/15/24 13:25
BKG02@4.0'	2402287-04	Soil	02/15/24 00:00	02/15/24 13:25
BKG03@5.0'	2402287-05	Soil	02/15/24 00:00	02/15/24 13:25
BKG03@4.0'	2402287-06	Soil	02/15/24 00:00	02/15/24 13:25
BKG04@5.0'	2402287-07	Soil	02/15/24 00:00	02/15/24 13:25
BKG04@4.0'	2402287-08	Soil	02/15/24 00:00	02/15/24 13:25
BKG05@5.0'	2402287-09	Soil	02/15/24 00:00	02/15/24 13:25
BKG05@4.0'	2402287-10	Soil	02/15/24 00:00	02/15/24 13:25
BKG06@5.0'	2402287-11	Soil	02/14/24 00:00	02/15/24 13:25
BKG07@5.0'	2402287-12	Soil	02/14/24 00:00	02/15/24 13:25
BKG08@5.0'	2402287-13	Soil	02/14/24 00:00	02/15/24 13:25
BKG09@5.0'	2402287-14	Soil	02/14/24 00:00	02/15/24 13:25
BKG10@5.0'	2402287-15	Soil	02/14/24 00:00	02/15/24 13:25

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

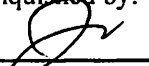
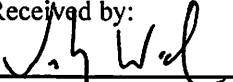
# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 1
2402287	

Client: Fremont Env		Send Data To:		Send Invoice To:	
Address:		Project Manager: Paul Henschen		Company:	
City/State/Zip:		E-Mail: Paulh@fremontenv.com		Project Name/Location:	
Phone:		Jeff@fremontenv.com Ethemb@fremontenv.com		AFE#:	
Sampler Name: JG		Project Name: Hanson BC O-64N67W 1NESE (Background)		PO/Billing Codes: VWRWE-AD137-ARN	
		Project Number:		Contact:	

					Preservative				Matrix				Analysis Requested							Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____	EC, pH, SAR, Boron	Metals (915)							
1	BK601@5.0'	2/15/24		1			X			X			X	X							
2	BK601@4.0'	↓		↓			↓			↓			↓	↓							
3	BK602@5.0'			↓			↓			↓			↓	↓							
4	BK602@4.0'			↓			↓			↓			↓	↓							
5	BK603@5.0'			↓			↓			↓			↓	↓							
6	BK603@4.0'			↓			↓			↓			↓	↓							
7	BK604@5.0'			↓			↓			↓			↓	↓							
8	BK604@4.0'			↓			↓			↓			↓	↓							
9	BK605@5.0'	↓		↓			↓			↓			↓	↓							
10	BK605@4.0'	2/15/24		↓			↓			↓			↓	↓							
11	BK606@5.0'	2/14/24		↓			↓			↓			↓	↓							
12	BK607@5.0'	↓		↓			↓			↓			↓	↓							
13	BK608@5.0'			↓			↓			↓			↓	↓							
14	BK609@5.0'			↓			↓			↓			↓	↓							
15	BK610@5.0'	↓		↓			↓			↓			↓	↓							

Relinquished by: 	Date/Time: 2/15/24 13:25	Received by: 	Date/Time: 2/15/24 13:25	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 8.2	Corrected Temperature	IR gun #: 2	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2402287Client: Fremont Client Project ID: Hanson BCD-64N67W 1NESE (backgrounds)Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 8.2 Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
If custody seals are present, are they intact? <sup>(1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no sample times
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

John W. L.

Custodian Printed Name

2/15/24 13:25

Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG01@5.0'**  
**2402287-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	5.81	0.181		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	78.2	0.362		"	"	"	"	"	"	
Cadmium	0.193	0.181		"	"	"	"	"	"	
Copper	6.53	0.362		"	"	"	"	"	"	
Lead	7.65	0.181		"	"	"	"	"	"	
Nickel	9.61	0.362		"	"	"	"	"	"	
Silver	0.0325	0.0181		"	"	"	"	"	"	
Zinc	22.6	0.362		"	"	"	"	"	"	
Selenium	ND	0.236		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	7.49	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	2.24	0.0500		"	"	"	"	"	"	
Sodium	4.46	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG01@5.0'**  
**2402287-01 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.367	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.2		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.85	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.93		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG01@4.0'**  
**2402287-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	6.49	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	97.3	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	6.56	0.400		"	"	"	"	"	"	
Lead	8.36	0.200		"	"	"	"	"	"	
Nickel	9.69	0.400		"	"	"	"	"	"	
Silver	0.0394	0.0200		"	"	"	"	"	"	
Zinc	23.9	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	4.84	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	1.96	0.0500		"	"	"	"	"	"	
Sodium	7.16	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG01@4.0'**  
**2402287-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.694</b>	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>91.1</b>		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>2.66</b>	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.61</b>		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG02@5.0'**  
**2402287-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	5.65	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	92.2	0.400		"	"	"	"	"	"	
Cadmium	0.244	0.200		"	"	"	"	"	"	
Copper	9.30	0.400		"	"	"	"	"	"	
Lead	8.08	0.200		"	"	"	"	"	"	
Nickel	12.8	0.400		"	"	"	"	"	"	
Silver	0.0382	0.0200		"	"	"	"	"	"	
Zinc	26.2	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	9.80	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	4.00	0.0500		"	"	"	"	"	"	
Sodium	7.02	0.0500		"	"	"	"	"	"	

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Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG02@5.0'**  
**2402287-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.477	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.0		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.68	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.83		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG02@4.0'**  
**2402287-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	6.20	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	98.4	0.400		"	"	"	"	"	"	
Cadmium	0.212	0.200		"	"	"	"	"	"	
Copper	7.79	0.400		"	"	"	"	"	"	
Lead	8.12	0.200		"	"	"	"	"	"	
Nickel	10.9	0.400		"	"	"	"	"	"	
Silver	0.0427	0.0200		"	"	"	"	"	"	
Zinc	25.2	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	8.34	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	5.21	0.0500		"	"	"	"	"	"	
Sodium	9.91	0.0500		"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG02@4.0'**  
**2402287-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.663	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.4		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.94	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.54		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG03@5.0'**  
**2402287-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	5.11	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	85.3	0.400		"	"	"	"	"	"	
Cadmium	0.230	0.200		"	"	"	"	"	"	
Copper	8.07	0.400		"	"	"	"	"	"	
Lead	7.28	0.200		"	"	"	"	"	"	
Nickel	11.3	0.400		"	"	"	"	"	"	
Silver	0.0395	0.0200		"	"	"	"	"	"	
Zinc	24.3	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	11.7	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	2.75	0.0500		"	"	"	"	"	"	
Sodium	7.64	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG03@5.0'**  
**2402287-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.522	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.5		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.32	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.38		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG03@4.0'**  
**2402287-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	24.1	0.200	mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	118	0.400	"	"	"	"	"	"	
Cadmium	0.296	0.200	"	"	"	"	"	"	
Copper	9.73	0.400	"	"	"	"	"	"	
Lead	8.29	0.200	"	"	"	"	"	"	
Nickel	12.8	0.400	"	"	"	"	"	"	
Silver	0.0481	0.0200	"	"	"	"	"	"	
Zinc	25.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	7.48	0.0500	mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	1.94	0.0500	"	"	"	"	"	"	
Sodium	3.61	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG03@4.0'**  
**2402287-06 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.304</b>	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>88.1</b>		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>1.71</b>	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.63</b>		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG04@5.0'**  
**2402287-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.89	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	105	0.400		"	"	"	"	"	"	
Cadmium	0.245	0.200		"	"	"	"	"	"	
Copper	11.1	0.400		"	"	"	"	"	"	
Lead	6.93	0.200		"	"	"	"	"	"	
Nickel	15.2	0.400		"	"	"	"	"	"	
Silver	0.0440	0.0200		"	"	"	"	"	"	
Zinc	24.7	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	6.74	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	3.95	0.0500		"	"	"	"	"	"	
Sodium	4.18	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG04@5.0'**  
**2402287-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.316	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.2		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.44	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.08		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG04@4.0'**  
**2402287-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.61	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	93.1	0.400		"	"	"	"	"	"	
Cadmium	0.222	0.200		"	"	"	"	"	"	
Copper	9.55	0.400		"	"	"	"	"	"	
Lead	7.56	0.200		"	"	"	"	"	"	
Nickel	13.1	0.400		"	"	"	"	"	"	
Silver	0.0489	0.0200		"	"	"	"	"	"	
Zinc	24.8	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	13.1	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	5.17	0.0500		"	"	"	"	"	"	
Sodium	6.38	0.0500		"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG04@4.0'**  
**2402287-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.378	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.1		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.24	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.53		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
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Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG05@5.0'**  
**2402287-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	<b>0.810</b>	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	<b>31.3</b>	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	<b>3.43</b>	0.400		"	"	"	"	"	"	
Lead	<b>2.18</b>	0.200		"	"	"	"	"	"	
Nickel	<b>5.54</b>	0.400		"	"	"	"	"	"	
Silver	ND	0.0200		"	"	"	"	"	"	
Zinc	<b>12.7</b>	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	<b>0.620</b>	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	<b>0.829</b>	0.0500		"	"	"	"	"	"	
Sodium	<b>2.39</b>	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
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Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG05@5.0'**  
**2402287-09 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.467	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.1		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.09	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.61		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG05@4.0'**  
**2402287-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.89	0.200	mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	24.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.48	0.400	"	"	"	"	"	"	
Lead	1.78	0.200	"	"	"	"	"	"	
Nickel	3.84	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.47	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	0.977	0.0500	mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	1.05	0.0500	"	"	"	"	"	"	
Sodium	2.22	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG05@4.0'**  
**2402287-10 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.371	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.4		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.51	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/15/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.58		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG06@5.0'**  
**2402287-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	<b>1.31</b>	0.180	mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	<b>37.6</b>	0.360	"	"	"	"	"	"	
Cadmium	ND	0.180	"	"	"	"	"	"	
Copper	<b>2.69</b>	0.360	"	"	"	"	"	"	
Lead	<b>2.27</b>	0.180	"	"	"	"	"	"	
Nickel	<b>3.79</b>	0.360	"	"	"	"	"	"	
Silver	ND	0.0180	"	"	"	"	"	"	
Zinc	<b>10.6</b>	0.360	"	"	"	"	"	"	
Selenium	ND	0.234	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	<b>2.50</b>	0.0500	mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	<b>1.78</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>1.05</b>	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG06@5.0'**  
**2402287-11 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.124	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.1		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.694	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.42		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG07@5.0'**  
**2402287-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.63	0.200		mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	162	0.400		"	"	"	"	"	"	
Cadmium	0.225	0.200		"	"	"	"	"	"	
Copper	13.2	0.400		"	"	"	"	"	"	
Lead	8.65	0.200		"	"	"	"	"	"	
Nickel	10.4	0.400		"	"	"	"	"	"	
Silver	0.0523	0.0200		"	"	"	"	"	"	
Zinc	28.3	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	7.46	0.0500		mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	2.56	0.0500		"	"	"	"	"	"	
Sodium	2.68	0.0500		"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG07@5.0'**  
**2402287-12 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.216	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.242	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.15		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG08@5.0'**  
**2402287-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	<b>0.742</b>	0.200	mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	<b>23.1</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	<b>2.07</b>	0.400	"	"	"	"	"	"	
Lead	<b>1.65</b>	0.200	"	"	"	"	"	"	
Nickel	<b>2.64</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	<b>7.93</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	<b>1.34</b>	0.0500	mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	<b>1.56</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>1.14</b>	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG08@5.0'**  
**2402287-13 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.159	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.19	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG09@5.0'**  
**2402287-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.39	0.200	mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	73.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.94	0.400	"	"	"	"	"	"	
Lead	5.23	0.200	"	"	"	"	"	"	
Nickel	6.72	0.400	"	"	"	"	"	"	
Silver	0.0287	0.0200	"	"	"	"	"	"	
Zinc	18.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	4.89	0.0500	mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	1.34	0.0500	"	"	"	"	"	"	
Sodium	3.84	0.0500	"	"	"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG09@5.0'**  
**2402287-14 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.397	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.8		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.10	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.90		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG10@5.0'**  
**2402287-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0920	02/29/24	03/01/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.60	0.200	mg/kg dry	1	BHD0325	04/10/24	04/12/24	EPA 6020B	
Barium	25.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.41	0.400	"	"	"	"	"	"	
Lead	3.07	0.200	"	"	"	"	"	"	
Nickel	4.66	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	13.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

**I-04**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0615	04/18/24	04/18/24	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	2.38	0.0500	mg/L dry	1	BHB0673	02/21/24	02/29/24	EPA 6020B	
Magnesium	0.877	0.0500	"	"	"	"	"	"	
Sodium	0.505	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
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Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**BKG10@5.0'**  
**2402287-15 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0711	0.00100	units	1	BHC0013	03/01/24	03/01/24	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3		%	1	BHB0854	02/27/24	02/28/24	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.06	0.0100	mmhos/cm	1	BHB0732	02/22/24	02/25/24	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/14/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.84		pH Units	1	BHB0730	02/22/24	02/25/24	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

### Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control

#### Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

#### Batch BHB0920 - EPA 3050B

##### Blank (BHB0920-BLK1)

Prepared: 02/29/24 Analyzed: 03/01/24

Boron ND 2.00 mg/L

##### LCS (BHB0920-BS1)

Prepared: 02/29/24 Analyzed: 03/01/24

Boron 5.21 2.00 mg/L 5.00 104 80-120

##### Duplicate (BHB0920-DUP1)

Source: 2402062-04

Prepared: 02/29/24 Analyzed: 03/01/24

Boron 0.635 2.00 mg/L 0.634 0.124 20

##### Matrix Spike (BHB0920-MS1)

Source: 2402062-04

Prepared: 02/29/24 Analyzed: 03/01/24

Boron 5.77 2.00 mg/L 5.00 0.634 103 75-125

##### Matrix Spike Dup (BHB0920-MSD1)

Source: 2402062-04

Prepared: 02/29/24 Analyzed: 03/01/24

Boron 5.75 2.00 mg/L 5.00 0.634 102 75-125 0.340 25

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Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BHD0325 - EPA 3050B**

**Blank (BHD0325-BLK1)**

Prepared: 04/10/24 Analyzed: 04/12/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

**LCS (BHD0325-BS1)**

Prepared: 04/10/24 Analyzed: 04/12/24

Arsenic	37.2	0.200	mg/kg wet	40.0	93.1	80-120
Barium	37.6	0.400	"	40.0	94.0	80-120
Cadmium	1.89	0.200	"	2.00	94.6	80-120
Copper	37.7	0.400	"	40.0	94.2	80-120
Lead	18.6	0.200	"	20.0	92.9	80-120
Nickel	37.1	0.400	"	40.0	92.8	80-120
Silver	1.90	0.0200	"	2.00	94.9	80-120
Zinc	38.5	0.400	"	40.0	96.2	80-120
Selenium	4.03	0.260	"	4.00	101	80-120

**Duplicate (BHD0325-DUP1)**

Source: 2402238-21

Prepared: 04/10/24 Analyzed: 04/12/24

Arsenic	7.13	0.200	mg/kg dry	7.27	1.97	20
Barium	16.4	0.400	"	16.2	0.947	20
Cadmium	0.219	0.200	"	0.197	10.6	20
Copper	4.86	0.400	"	4.80	1.39	20
Lead	4.46	0.200	"	4.26	4.51	20
Nickel	3.52	0.400	"	3.60	2.01	20
Silver	0.00944	0.0200	"	0.00616	42.1	20
Zinc	9.29	0.400	"	8.41	9.97	20
Selenium	0.503	0.260	"	0.430	15.6	20

QR-01

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BHD0325 - EPA 3050B**

**Matrix Spike (BHD0325-MS1)**

Source: 2402238-21

Prepared: 04/10/24 Analyzed: 04/12/24

Arsenic	42.3	0.200	mg/kg dry	39.3	7.27	89.0	75-125
Barium	51.0	0.400	"	39.3	16.2	88.4	75-125
Cadmium	2.05	0.200	"	1.97	0.197	94.3	75-125
Copper	41.2	0.400	"	39.3	4.80	92.4	75-125
Lead	21.1	0.200	"	19.7	4.26	85.6	75-125
Nickel	39.5	0.400	"	39.3	3.60	91.4	75-125
Silver	1.95	0.0200	"	1.97	0.00616	98.7	75-125
Zinc	39.9	0.400	"	39.3	8.41	80.0	75-125
Selenium	4.49	0.260	"	3.93	0.430	103	75-125

**Matrix Spike Dup (BHD0325-MSD1)**

Source: 2402238-21

Prepared: 04/10/24 Analyzed: 04/12/24

Arsenic	44.1	0.200	mg/kg dry	39.3	7.27	93.6	75-125	4.21	25
Barium	57.1	0.400	"	39.3	16.2	104	75-125	11.3	25
Cadmium	2.32	0.200	"	1.97	0.197	108	75-125	12.2	25
Copper	42.9	0.400	"	39.3	4.80	96.8	75-125	4.14	25
Lead	24.0	0.200	"	19.7	4.26	101	75-125	13.1	25
Nickel	41.1	0.400	"	39.3	3.60	95.4	75-125	3.94	25
Silver	2.15	0.0200	"	1.97	0.00616	109	75-125	10.0	25
Zinc	43.8	0.400	"	39.3	8.41	90.0	75-125	9.35	25
Selenium	5.15	0.260	"	3.93	0.430	120	75-125	13.6	25

Summit Scientific

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Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BHD0615 - 3060A Mod**

**Blank (BHD0615-BLK1)**

Prepared & Analyzed: 04/18/24

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BHD0615-BS1)**

Prepared & Analyzed: 04/18/24

Chromium, Hexavalent 25.6 0.30 mg/kg wet 25.0 102 80-120

**Duplicate (BHD0615-DUP1)**

**Source: 2402287-01**

Prepared & Analyzed: 04/18/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BHD0615-MS1)**

**Source: 2402287-01**

Prepared & Analyzed: 04/18/24

Chromium, Hexavalent 28.5 0.30 mg/kg dry 28.0 ND 102 75-125

**Matrix Spike Dup (BHD0615-MSD1)**

**Source: 2402287-01**

Prepared & Analyzed: 04/18/24

Chromium, Hexavalent 28.5 0.30 mg/kg dry 28.0 ND 102 75-125 0.00 20

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Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

**Batch BHB0673 - General Preparation**

**Blank (BHB0673-BLK1)**

Prepared: 02/21/24 Analyzed: 02/29/24

Calcium	ND	0.0500	mg/L wet
Magnesium	ND	0.0500	"
Sodium	ND	0.0500	"

**LCS (BHB0673-BS1)**

Prepared: 02/21/24 Analyzed: 02/29/24

Calcium	5.85	0.0500	mg/L wet	5.00	117	70-130
Magnesium	5.53	0.0500	"	5.00	111	70-130
Sodium	5.54	0.0500	"	5.00	111	70-130

Summit Scientific

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Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Hanson BC 0-64N67W 1NESE (Backgrounds) Project Number: UWRWE-A2137-ABN Project Manager: Paul Henchan	Reported: 04/22/24 09:27
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Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

Batch BHB0854 - General Preparation

Duplicate (BHB0854-DUP1)		Source: 2402287-01			Prepared: 02/27/24 Analyzed: 02/28/24					
% Solids	89.3		%		89.2			0.204	20	

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Project: Hanson BC 0-64N67W 1NESE (Backgrounds)  
Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BHB0732 - General Preparation**

**Blank (BHB0732-BLK1)**

Prepared: 02/22/24 Analyzed: 02/25/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHB0732-BS1)**

Prepared: 02/22/24 Analyzed: 02/25/24

Specific Conductance (EC) 0.146 0.0100 mmhos/cm 0.150 97.3 95-105

**Duplicate (BHB0732-DUP1)**

**Source: 2402062-04**

Prepared: 02/22/24 Analyzed: 02/25/24

Specific Conductance (EC) 0.469 0.0100 mmhos/cm 0.466 0.727 20

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PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)

Project Number: UWRWE-A2137-ABN

Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD	
		Limit	Units		Result	%REC	Limits	RPD	Limit	Notes

**Batch BHB0730 - General Preparation**

**LCS (BHB0730-BS1)**

Prepared: 02/22/24 Analyzed: 02/25/24

pH	9.08	pH Units	9.18	98.9	95-105
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**Duplicate (BHB0730-DUP1)**

**Source: 2402062-04**

Prepared: 02/22/24 Analyzed: 02/25/24

pH	8.28	pH Units	8.35	0.842	20
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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Hanson BC 0-64N67W 1NESE (Backgrounds)

Project Number: UWRWE-A2137-ABN  
Project Manager: Paul Henchan

**Reported:**  
04/22/24 09:27

### Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
I-04	Sample was analyzed out of recommended holding time per clients request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference