

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 11, 2025

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Wells Ranch AA (Backgrounds)

Work Order #2402397

Enclosed are the results of analyses for samples received by Summit Scientific on 02/22/24 17:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG01@6.0'	2402397-01	Soil	02/21/24 00:00	02/22/24 17:35
BKG01@7.0'	2402397-02	Soil	02/21/24 00:00	02/22/24 17:35
BKG02@6.0'	2402397-03	Soil	02/21/24 00:00	02/22/24 17:35
BKG02@7.0'	2402397-04	Soil	02/21/24 00:00	02/22/24 17:35
BKG03@6.0'	2402397-05	Soil	02/22/24 00:00	02/22/24 17:35
BKG03@7.0'	2402397-06	Soil	02/22/24 00:00	02/22/24 17:35
BKG04@6.0'	2402397-07	Soil	02/22/24 00:00	02/22/24 17:35
BKG04@7.0'	2402397-08	Soil	02/22/24 00:00	02/22/24 17:35
BKG05@6.0'	2402397-09	Soil	02/22/24 00:00	02/22/24 17:35
BKG06@6.0'	2402397-10	Soil	02/22/24 00:00	02/22/24 17:35
BKG07@6.0'	2402397-11	Soil	02/22/24 00:00	02/22/24 17:35

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

Lab ID	Page <u>1</u> of <u>1</u>
2402397	

Client: <u>Fremont Env</u>		Project Manager: <u>Paul Henehan</u>		Company: <u>Noble</u>	
Address:		E-Mail: <u>Paulh@fremontenv.com</u>		Project Name/Location:	
City/State/Zip:		<u>jeffg@fremontenv.com Ethanh@fremontenv.com</u>		AFE#:	
Phone:		Project Name: <u>Wells Ranch AA (Background)</u>		PO/Billing Codes: <u>UWRWR-A3006-ABN</u>	
Sampler Name: <u>JG</u>		Project Number:		Contact:	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Ec. pH, SAR, Boron	Metals (915)		
1	BK601@6.0'	2/21/24		1			X			X			X	X		
2	BK601@7.0'	↓		↓			↓			↓			↓	↓		
3	BK602@6.0'															
4	BK602@7.0'	↓		↓			↓			↓			↓	↓		
5	BK603@6.0'	2/22/24		1			X			X			X	X		
6	BK603@7.0'	↓		↓			↓			↓			↓	↓		
7	BK604@6.0'	↓		↓			↓			↓			↓	↓		
8	BK604@7.0'	↓		↓			↓			↓			↓	↓		
9	BK605@6.0'	↓		↓			↓			↓			↓	↓		
10	BK606@6.0'	↓		↓			↓			↓			↓	↓		
11	BK607@6.0'	↓		↓			↓			↓			↓	↓		
12																
13																
14																
15																

Relinquished by: <u>[Signature]</u>	Date/Time: <u>2/22/24</u>	Received by: <u>[Signature]</u>	Date/Time: <u>2/22/24 17:35</u>	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	
				3 Days	Field Temp.	
				Standard	<input checked="" type="checkbox"/> Field Turb.	
Temperature Upon Receipt: <u>14.2</u>	Corrected Temperature: _____	IR gun #: <u>2</u>	HNO3 lot #: _____			

S₂

Sample Receipt Checklist

S2 Work Order# 2402397

Client: Fremont Client Project ID: Noble Wells Ranch AA (Backgrounds)

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other [] Airbill #: []

[] [] [] [] []

Matrix (Check all that apply) Air [] Soil/Solid [] Water [] Other []

Temp (°C) 14.2

Thermometer # 2

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: 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"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ 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):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS
Custodian Printed Name

2/22/24
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG01@6.0'
2402397-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	4.64	0.200		mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	64.8	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	2.79	0.400		"	"	"	"	"	"	
Lead	5.33	0.200		"	"	"	"	"	"	
Nickel	3.23	0.400		"	"	"	"	"	"	
Silver	0.0430	0.0200		"	"	"	"	"	"	
Zinc	12.0	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	43.7	0.0500		mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	3.93	0.0500		"	"	"	"	"	"	
Sodium	2.60	0.0500		"	"	"	"	"	"	

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Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG01@6.0'
2402397-01 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.101	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.9		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.112	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.69		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG01@7.0'
2402397-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.90	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	97.9	0.400	"	"	"	"	"	"	
Cadmium	0.348	0.200	"	"	"	"	"	"	
Copper	3.09	0.400	"	"	"	"	"	"	
Lead	6.35	0.200	"	"	"	"	"	"	
Nickel	4.04	0.400	"	"	"	"	"	"	
Silver	0.0434	0.0200	"	"	"	"	"	"	
Zinc	13.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	18.1	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	4.13	0.0500	"	"	"	"	"	"	
Sodium	10.0	0.0500	"	"	"	"	"	"	

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Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG01@7.0'
2402397-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.552	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.4		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.162	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.53		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

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Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG02@6.0'
2402397-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.98	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	98.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.20	0.400	"	"	"	"	"	"	
Lead	8.11	0.200	"	"	"	"	"	"	
Nickel	5.07	0.400	"	"	"	"	"	"	
Silver	0.0635	0.0200	"	"	"	"	"	"	
Zinc	15.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	41.2	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	7.96	0.0500	"	"	"	"	"	"	
Sodium	13.4	0.0500	"	"	"	"	"	"	

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Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG02@6.0'
2402397-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.501	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.420	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

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PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG02@7.0'
2402397-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.49	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	74.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.50	0.400	"	"	"	"	"	"	
Lead	5.31	0.200	"	"	"	"	"	"	
Nickel	3.18	0.400	"	"	"	"	"	"	
Silver	0.0414	0.0200	"	"	"	"	"	"	
Zinc	11.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	24.7	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	4.03	0.0500	"	"	"	"	"	"	
Sodium	4.78	0.0500	"	"	"	"	"	"	

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Project: Noble - Wells Ranch AA (Backgrounds)
 Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

BKG02@7.0'
2402397-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.235	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.5		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.221	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/21/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

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Fremont Environmental
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Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG03@6.0'
2402397-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.95	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	36.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.71	0.400	"	"	"	"	"	"	
Lead	3.40	0.200	"	"	"	"	"	"	
Nickel	1.92	0.400	"	"	"	"	"	"	
Silver	0.0294	0.0200	"	"	"	"	"	"	
Zinc	7.96	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	85.9	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	19.0	0.0500	"	"	"	"	"	"	
Sodium	2.48	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG03@6.0'
2402397-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0631	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0770	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG03@7.0'
2402397-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.65	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	68.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.69	0.400	"	"	"	"	"	"	
Lead	3.68	0.200	"	"	"	"	"	"	
Nickel	1.78	0.400	"	"	"	"	"	"	
Silver	0.0232	0.0200	"	"	"	"	"	"	
Zinc	7.21	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	44.5	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	8.15	0.0500	"	"	"	"	"	"	
Sodium	2.54	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG03@7.0'
2402397-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0919	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.7		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.111	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.63		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG04@6.0'
2402397-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.92	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	83.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.99	0.400	"	"	"	"	"	"	
Lead	8.08	0.200	"	"	"	"	"	"	
Nickel	2.92	0.400	"	"	"	"	"	"	
Silver	0.0350	0.0200	"	"	"	"	"	"	
Zinc	9.01	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	56.2	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	5.18	0.0500	"	"	"	"	"	"	
Sodium	7.27	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG04@6.0'
2402397-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.249	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.0		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.150	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.70		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG04@7.0'
2402397-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.22	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	34.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.61	0.400	"	"	"	"	"	"	
Lead	2.83	0.200	"	"	"	"	"	"	
Nickel	1.85	0.400	"	"	"	"	"	"	
Silver	0.0345	0.0200	"	"	"	"	"	"	
Zinc	7.98	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	21.6	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	3.28	0.0500	"	"	"	"	"	"	
Sodium	4.72	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG04@7.0'
2402397-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.250	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.2		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.142	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.62		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG05@6.0'
2402397-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.49	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	44.9	0.400	"	"	"	"	"	"	
Cadmium	0.285	0.200	"	"	"	"	"	"	
Copper	4.84	0.400	"	"	"	"	"	"	
Lead	8.74	0.200	"	"	"	"	"	"	
Nickel	5.24	0.400	"	"	"	"	"	"	
Silver	0.0607	0.0200	"	"	"	"	"	"	
Zinc	25.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	62.6	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	33.6	0.0500	"	"	"	"	"	"	
Sodium	38.4	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG05@6.0'
2402397-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.973	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.914	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG06@6.0'
2402397-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.34	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	81.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.75	0.400	"	"	"	"	"	"	
Lead	4.55	0.200	"	"	"	"	"	"	
Nickel	3.57	0.400	"	"	"	"	"	"	
Silver	0.0433	0.0200	"	"	"	"	"	"	
Zinc	11.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	20.6	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	6.22	0.0500	"	"	"	"	"	"	
Sodium	1.78	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG06@6.0'
2402397-10 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0882	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.4		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.150	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.46		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG07@6.0'
2402397-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0265	03/11/24	03/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.72	0.200	mg/kg dry	1	BHC0140	03/06/24	03/07/24	EPA 6020B	
Barium	53.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.80	0.400	"	"	"	"	"	"	
Lead	6.16	0.200	"	"	"	"	"	"	
Nickel	3.26	0.400	"	"	"	"	"	"	
Silver	0.0491	0.0200	"	"	"	"	"	"	
Zinc	12.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0460	03/15/24	03/15/24	EPA 7196A	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	27.8	0.0500	mg/L dry	1	BHC0028	03/03/24	03/07/24	EPA 6020B	
Magnesium	6.03	0.0500	"	"	"	"	"	"	
Sodium	5.87	0.0500	"	"	"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)
Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

BKG07@6.0'
2402397-11 (Soil)

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Calculated Analysis

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.263	0.00100	units	1	BHC0234	03/08/24	03/08/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.5		%	1	BHC0124	03/06/24	03/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.176	0.0100	mmhos/cm	1	BHC0030	03/03/24	03/06/24	EPA 120.1	

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

Date Sampled: **02/22/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BHC0029	03/03/24	03/06/24	EPA 9045D	

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

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

Summit Scientific

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

Batch BHC0265 - EPA 3050B

Blank (BHC0265-BLK1)

Prepared: 03/11/24 Analyzed: 03/13/24

Boron ND 2.00 mg/L

LCS (BHC0265-BS1)

Prepared: 03/11/24 Analyzed: 03/13/24

Boron 5.97 2.00 mg/L 5.00 119 80-120

Duplicate (BHC0265-DUP1)

Source: 2402396-01

Prepared: 03/11/24 Analyzed: 03/13/24

Boron 0.0650 2.00 mg/L ND 200 20 QR-01

Matrix Spike (BHC0265-MS1)

Source: 2402396-01

Prepared: 03/11/24 Analyzed: 03/13/24

Boron 5.76 2.00 mg/L 5.00 ND 115 75-125

Matrix Spike Dup (BHC0265-MSD1)

Source: 2402396-01

Prepared: 03/11/24 Analyzed: 03/13/24

Boron 5.90 2.00 mg/L 5.00 ND 118 75-125 2.39 25

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHC0140 - EPA 3050B

Blank (BHC0140-BLK1)

Prepared: 03/06/24 Analyzed: 03/07/24

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 (BHC0140-BS1)

Prepared: 03/06/24 Analyzed: 03/07/24

Arsenic	44.2	0.200	mg/kg wet	40.0		110	80-120			
Barium	43.7	0.400	"	40.0		109	80-120			
Cadmium	1.99	0.200	"	2.00		99.6	80-120			
Copper	38.6	0.400	"	40.0		96.4	80-120			
Lead	20.5	0.200	"	20.0		102	80-120			
Nickel	38.4	0.400	"	40.0		96.0	80-120			
Silver	2.03	0.0200	"	2.00		102	80-120			
Zinc	39.2	0.400	"	40.0		98.0	80-120			
Selenium	3.72	0.260	"	4.00		93.1	80-120			

Duplicate (BHC0140-DUP1)

Source: 2402394-01

Prepared: 03/06/24 Analyzed: 03/07/24

Arsenic	4.10	0.200	mg/kg dry		3.68			10.9	20	
Barium	96.3	0.400	"		80.6			17.8	20	
Cadmium	0.197	0.200	"		0.184			6.59	20	
Copper	3.53	0.400	"		3.50			0.596	20	
Lead	7.40	0.200	"		6.82			8.18	20	
Nickel	4.19	0.400	"		3.99			5.05	20	
Silver	0.0544	0.0200	"		0.0535			1.72	20	
Zinc	14.0	0.400	"		14.0			0.512	20	
Selenium	ND	0.260	"		ND				20	

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHC0140 - EPA 3050B

Matrix Spike (BHC0140-MS1)

Source: 2402394-01

Prepared: 03/06/24 Analyzed: 03/07/24

Arsenic	61.9	0.200	mg/kg dry	46.5	3.68	125	75-125				
Barium	143	0.400	"	46.5	80.6	134	75-125				QM-05
Cadmium	2.77	0.200	"	2.33	0.184	111	75-125				
Copper	31.7	0.400	"	46.5	3.50	60.5	75-125				QM-05
Lead	30.7	0.200	"	23.3	6.82	103	75-125				
Nickel	33.0	0.400	"	46.5	3.99	62.4	75-125				QM-05
Silver	2.37	0.0200	"	2.33	0.0535	99.4	75-125				
Zinc	42.2	0.400	"	46.5	14.0	60.6	75-125				QM-05
Selenium	3.61	0.260	"	4.65	ND	77.6	75-125				

Matrix Spike Dup (BHC0140-MSD1)

Source: 2402394-01

Prepared: 03/06/24 Analyzed: 03/07/24

Arsenic	60.5	0.200	mg/kg dry	46.5	3.68	122	75-125	2.27	25		
Barium	143	0.400	"	46.5	80.6	135	75-125	0.285	25		QM-05
Cadmium	2.84	0.200	"	2.33	0.184	114	75-125	2.59	25		
Copper	32.9	0.400	"	46.5	3.50	63.1	75-125	3.74	25		QM-05
Lead	31.2	0.200	"	23.3	6.82	105	75-125	1.34	25		
Nickel	34.0	0.400	"	46.5	3.99	64.6	75-125	3.07	25		QM-05
Silver	2.40	0.0200	"	2.33	0.0535	101	75-125	1.50	25		
Zinc	43.6	0.400	"	46.5	14.0	63.7	75-125	3.37	25		QM-05
Selenium	4.06	0.260	"	4.65	ND	87.2	75-125	11.6	25		

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHC0460 - 3060A Mod

Blank (BHC0460-BLK1)

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHC0460-BS1)

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent 24.6 0.30 mg/kg wet 25.0 98.2 80-120

Duplicate (BHC0460-DUP1)

Source: 2402397-01

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHC0460-MS1)

Source: 2402397-01

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent 27.8 0.30 mg/kg dry 26.6 ND 105 75-125

Matrix Spike Dup (BHC0460-MSD1)

Source: 2402397-01

Prepared & Analyzed: 03/15/24

Chromium, Hexavalent 27.8 0.30 mg/kg dry 26.6 ND 105 75-125 0.00 20

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Fremont Environmental
 PO Box 1289
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Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

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

Summit Scientific

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

Batch BHC0028 - General Preparation

Blank (BHC0028-BLK1)

Prepared: 03/03/24 Analyzed: 03/07/24

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

LCS (BHC0028-BS1)

Prepared: 03/03/24 Analyzed: 03/07/24

Calcium	5.14	0.0500	mg/L wet	5.00		103	70-130			
Magnesium	5.06	0.0500	"	5.00		101	70-130			
Sodium	5.15	0.0500	"	5.00		103	70-130			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

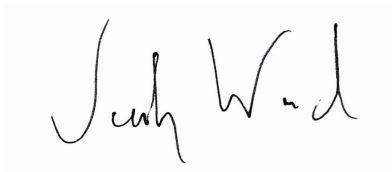
Summit Scientific

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

Batch BHC0124 - General Preparation

Duplicate (BHC0124-DUP1)	Source: 2402395-01	Prepared: 03/06/24	Analyzed: 03/08/24		
% Solids	92.0	%	91.8	0.232	20

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Fremont Environmental
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Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

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

Summit Scientific

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

Batch BHC0030 - General Preparation

Blank (BHC0030-BLK1)

Prepared: 03/03/24 Analyzed: 03/06/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHC0030-BS1)

Prepared: 03/03/24 Analyzed: 03/06/24

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BHC0030-DUP1)

Source: 2402397-01

Prepared: 03/03/24 Analyzed: 03/06/24

Specific Conductance (EC) 0.113 0.0100 mmhos/cm 0.112 1.16 20

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
 Project Manager: Paul Henchan

Reported:
 02/11/25 12:30

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

Summit Scientific

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

Batch BHC0029 - General Preparation

LCS (BHC0029-BS1)

Prepared: 03/03/24 Analyzed: 03/06/24

pH	9.06	pH Units	9.18	98.7	95-105
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Duplicate (BHC0029-DUP1)

Source: 2402397-01

Prepared: 03/03/24 Analyzed: 03/06/24

pH	8.69	pH Units	8.69	0.00	20
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch AA (Backgrounds)

Project Number: UWRWR-A3006-ABN
Project Manager: Paul Henchan

Reported:
02/11/25 12:30

Notes and Definitions

- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- 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