

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 14, 2024

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Wells Ranch USX AE T6N-R62W-S29 L02

Work Order #2410146

Enclosed are the results of analyses for samples received by Summit Scientific on 10/09/24 18:36. 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 Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02

Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PWV01E - 5FT	2410146-01	Soil	10/09/24 00:00	10/09/24 18:36
PWV01S - 5FT	2410146-02	Soil	10/09/24 00:00	10/09/24 18:36
PWV01B - 6FT	2410146-03	Soil	10/09/24 00:00	10/09/24 18:36

Summit Scientific

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

Lab ID	Page 1 of 1
2410146	

		Send Data To:										Send Invoice To:									
Client: Fremont Environmental		Project Manager: Paul Henehan										Company: Noble									
Address:		E-Mail: Fremont Distribution List										Project Name/Location:									
City/State/Zip:												AFE#:									
Phone: 303-261-6246		Project Name: Wells Ranch USX AE T6N-R62W-S29										PO/Billing Codes: UWRWE-A4187-ABN									
Sampler Name: Stanley Gilbert		Project Number:										Contact: Mike Montoya									
		Preservative				Matrix				Analysis Requested								Special Instructions			
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD		
1	PWV01 E-5Ft	10/9/24		2			X			X			X	X	X	X	X				
2	PWV01 S-5Ft	I		I			I			I			I	I	I	I	I				
3	PWV01 B-6Ft	I		I			I			I			I	I	I	I	I				
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by:	Date/Time: 10/9/24	Received by:	Date/Time: 10/9/24 10:36	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 5.1°	Corrected Temperature	IR gun #: 92	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2410146Client: Fremont Environmental Client Project ID: Wells Bench USX AE T6N-R62W-Shipped Via: ☒ H.D./P.U./FedEx/UPS/USPS/Other ☐Airbill #: S29602

Matrix (Check all that apply)

Air ☐Soil/Solid ☒Water ☐Other ☐

Temp (°C)

5.106

Thermometer #

82

	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"/>	<u>on ice</u>
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Same day</u>
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 type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input 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.				

Control Form #: SRC-001

LAZ
Custodian Printed Name

10/9/24 10:36
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PWV01E - 5FT
2410146-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0348	10/09/24	10/10/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.055	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.13	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.15	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.040	0.0050	"	"	"	"	"	"	
Naphthalene	0.056	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3.8	0.50	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0382	95.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0430	107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0350	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.1	80.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0358	10/10/24	10/11/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.0104	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0552	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00826	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.491	0.00500	"	"	"	"	"	"	E
2-Methylnaphthalene	0.636	0.00500	"	"	"	"	"	"	E

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0200	60.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0370	10/10/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PWV01E - 5FT
2410146-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.96	0.200	mg/kg dry	1	BHJ0369	10/10/24	10/10/24	EPA 6020B
Barium	41.3	0.400	"	"	"	"	"	"
Cadmium	0.202	0.200	"	"	"	"	"	"
Copper	15.2	0.400	"	"	"	"	"	"
Lead	12.4	0.200	"	"	"	"	"	"
Nickel	10.6	0.400	"	"	"	"	"	"
Silver	0.0514	0.0200	"	"	"	"	"	"
Zinc	45.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0364	10/10/24	10/10/24	EPA 7196A	

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

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	97.8	0.0500	mg/L dry	1	BHJ0343	10/09/24	10/10/24	EPA 6020B	
Magnesium	28.4	0.0500	"	"	"	"	"	"	
Sodium	50.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.16	0.00100	units	1	BHJ0441	10/11/24	10/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PWV01E - 5FT
2410146-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	83.3	%	1	BHJ0355	10/10/24	10/10/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.704	0.0100	mmhos/cm	1	BHJ0352	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.14		pH Units	1	BHJ0351	10/09/24	10/10/24	EPA 9045D	

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Reported:
10/14/24 13:20

PWV01S - 5FT
2410146-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0348	10/09/24	10/10/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	2.3	0.050	"	10	"	"	10/10/24	"	
Xylenes (total)	1.5	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	7.3	0.050	"	"	"	"	"	"	E
1,3,5-Trimethylbenzene	0.31	0.0050	"	1	"	"	10/10/24	"	
Naphthalene	0.36	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	400	5.0	"	10	"	"	10/10/24	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0473	118 %	50-150		"	"	10/10/24	"	
Surrogate: Toluene-d8	0.0427	107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.138	345 %	50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	190	50	mg/kg	1	BHJ0350	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.28	74.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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10/14/24 13:20

PWV01S - 5FT
2410146-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0384	0.00500	mg/kg	1	BHJ0358	10/10/24	10/11/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.00714	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.0322	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0120	0.00500	"	"	"	"	"	"	
Fluorene	0.210	0.100	"	20	"	"	10/11/24	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	1	"	"	10/11/24	"	
Pyrene	0.0360	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	1.71	0.100	"	20	"	"	10/11/24	"	
2-Methylnaphthalene	1.83	0.100	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0248	74.5 %	40-150		"	"	10/11/24	"	
Surrogate: Fluoranthene-d10	0.0238	71.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0370	10/10/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PWV01S - 5FT
2410146-02 (Soil)

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Total Metals by EPA 6020B

Arsenic	3.33	0.200	mg/kg dry	1	BHJ0369	10/10/24	10/10/24	EPA 6020B
Barium	44.6	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	8.79	0.400	"	"	"	"	"	"
Lead	7.69	0.200	"	"	"	"	"	"
Nickel	7.38	0.400	"	"	"	"	"	"
Silver	0.0365	0.0200	"	"	"	"	"	"
Zinc	33.0	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0364	10/10/24	10/10/24	EPA 7196A	

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

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	58.1	0.0500	mg/L dry	1	BHJ0343	10/09/24	10/10/24	EPA 6020B	
Magnesium	11.3	0.0500	"	"	"	"	"	"	
Sodium	7.97	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.251	0.00100	units	1	BHJ0441	10/11/24	10/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project Manager: Paul Henchan

Reported:
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PWV01S - 5FT
2410146-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.0		%	1	BHJ0355	10/10/24	10/10/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.295	0.0100	mmhos/cm	1	BHJ0352	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.20		pH Units	1	BHJ0351	10/09/24	10/10/24	EPA 9045D	

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Reported:
10/14/24 13:20

PWV01B - 6FT
2410146-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0348	10/09/24	10/10/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.023	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.030	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.073	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.023	0.0050	"	"	"	"	"	"	
Naphthalene	0.042	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	4.9	0.50	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0442	110 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0350	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.8	86.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PWV01B - 6FT
2410146-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.00791	0.00500	mg/kg	1	BHJ0358	10/10/24	10/11/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00832	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	0.0546	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00687	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.616	0.00500	"	"	"	"	"	"	E
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0183	54.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0206	61.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0370	10/10/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PWV01B - 6FT
2410146-03 (Soil)

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Total Metals by EPA 6020B

Arsenic	4.16	0.180	mg/kg dry	1	BHJ0369	10/10/24	10/10/24	EPA 6020B
Barium	37.0	0.360	"	"	"	"	"	"
Cadmium	ND	0.180	"	"	"	"	"	"
Copper	10.9	0.360	"	"	"	"	"	"
Lead	9.03	0.180	"	"	"	"	"	"
Nickel	9.68	0.360	"	"	"	"	"	"
Silver	0.0380	0.0180	"	"	"	"	"	"
Zinc	47.6	0.360	"	"	"	"	"	"
Selenium	ND	0.234	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0364	10/10/24	10/10/24	EPA 7196A	

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

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.0	0.0500	mg/L dry	1	BHJ0343	10/09/24	10/10/24	EPA 6020B	
Magnesium	6.68	0.0500	"	"	"	"	"	"	
Sodium	71.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.13	0.00100	units	1	BHJ0441	10/11/24	10/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PWV01B - 6FT
2410146-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.5		%	1	BHJ0355	10/10/24	10/10/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.337	0.0100	mmhos/cm	1	BHJ0352	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/09/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.13		pH Units	1	BHJ0351	10/09/24	10/10/24	EPA 9045D	

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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHJ0348 - EPA 5030 Soil MS

Blank (BHJ0348-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0350		"	0.0400		87.4	50-150			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	50-150			

LCS (BHJ0348-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

Benzene	0.0886	0.0020	mg/kg	0.100		88.6	70-130			
Toluene	0.0871	0.0050	"	0.100		87.1	70-130			
Ethylbenzene	0.0887	0.0050	"	0.100		88.7	70-130			
m,p-Xylene	0.174	0.010	"	0.200		87.0	70-130			
o-Xylene	0.0893	0.0050	"	0.100		89.3	70-130			
1,2,4-Trimethylbenzene	0.0850	0.0050	"	0.100		85.0	70-130			
1,3,5-Trimethylbenzene	0.0855	0.0050	"	0.100		85.5	70-130			
Naphthalene	0.0810	0.0038	"	0.100		81.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0354		"	0.0400		88.4	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	50-150			

Matrix Spike (BHJ0348-MS1)

Source: 2410133-01

Prepared: 10/09/24 Analyzed: 10/10/24

Benzene	0.0821	0.0020	mg/kg	0.100	ND	82.1	70-130			
Toluene	0.0819	0.0050	"	0.100	ND	81.9	70-130			
Ethylbenzene	0.0807	0.0050	"	0.100	ND	80.7	70-130			
m,p-Xylene	0.157	0.010	"	0.200	ND	78.6	70-130			
o-Xylene	0.0790	0.0050	"	0.100	ND	79.0	70-130			
1,2,4-Trimethylbenzene	0.0754	0.0050	"	0.100	ND	75.4	70-130			
1,3,5-Trimethylbenzene	0.0775	0.0050	"	0.100	ND	77.5	70-130			
Naphthalene	0.0752	0.0038	"	0.100	ND	75.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0400		97.0	50-150			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.8	50-150			

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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BHJ0348 - EPA 5030 Soil MS

Matrix Spike Dup (BHJ0348-MSD1)		Source: 2410133-01			Prepared: 10/09/24 Analyzed: 10/10/24					
Benzene	0.0803	0.0020	mg/kg	0.100	ND	80.3	70-130	2.18	30	
Toluene	0.0793	0.0050	"	0.100	ND	79.3	70-130	3.24	30	
Ethylbenzene	0.0807	0.0050	"	0.100	ND	80.7	70-130	0.0372	30	
m,p-Xylene	0.159	0.010	"	0.200	ND	79.5	70-130	1.18	30	
o-Xylene	0.0805	0.0050	"	0.100	ND	80.5	70-130	1.81	30	
1,2,4-Trimethylbenzene	0.0771	0.0050	"	0.100	ND	77.1	70-130	2.12	30	
1,3,5-Trimethylbenzene	0.0786	0.0050	"	0.100	ND	78.6	70-130	1.46	30	
Naphthalene	0.0740	0.0038	"	0.100	ND	74.0	70-130	1.65	30	
Surrogate: 1,2-Dichloroethane-d4		0.0376	"	0.0400		94.0	50-150			
Surrogate: Toluene-d8		0.0404	"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene		0.0394	"	0.0400		98.5	50-150			

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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHJ0350 - EPA 3550A

Blank (BHJ0350-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

Surrogate: o-Terphenyl	13.0	"	12.5	104	30-150
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LCS (BHJ0350-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	490	50	mg/kg	500	98.1	70-130
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Surrogate: o-Terphenyl	14.0	"	12.5	112	30-150
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Matrix Spike (BHJ0350-MS1)

Source: 2410133-01

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	401	50	mg/kg	500	ND	80.1	70-130
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Surrogate: o-Terphenyl	14.3	"	12.5	115	30-150
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Matrix Spike Dup (BHJ0350-MSD1)

Source: 2410133-01

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	414	50	mg/kg	500	ND	82.8	70-130	3.28	20
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Surrogate: o-Terphenyl	13.3	"	12.5	107	30-150
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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0358 - EPA 5030 Soil MS

Blank (BHJ0358-BLK1)

Prepared & Analyzed: 10/10/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0250		"	0.0333		74.9	40-150			
Surrogate: Fluoranthene-d10	0.0277		"	0.0333		83.1	40-150			

LCS (BHJ0358-BS1)

Prepared & Analyzed: 10/10/24

Acenaphthene	0.0218	0.00500	mg/kg	0.0333		65.3	31-137			
Anthracene	0.0223	0.00500	"	0.0333		67.0	30-120			
Benzo (a) anthracene	0.0230	0.00500	"	0.0333		68.9	30-120			
Benzo (a) pyrene	0.0215	0.00500	"	0.0333		64.5	30-120			
Benzo (b) fluoranthene	0.0217	0.00500	"	0.0333		65.1	30-120			
Benzo (k) fluoranthene	0.0218	0.00500	"	0.0333		65.4	30-120			
Chrysene	0.0229	0.00500	"	0.0333		68.8	30-120			
Dibenz (a,h) anthracene	0.0202	0.00500	"	0.0333		60.5	30-120			
Fluoranthene	0.0233	0.00500	"	0.0333		69.8	30-120			
Fluorene	0.0207	0.00500	"	0.0333		62.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0170	0.00500	"	0.0333		50.9	30-120			
Pyrene	0.0238	0.00500	"	0.0333		71.3	35-142			
1-Methylnaphthalene	0.0207	0.00500	"	0.0333		62.1	35-142			
2-Methylnaphthalene	0.0205	0.00500	"	0.0333		61.6	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0211		"	0.0333		63.3	40-150			
Surrogate: Fluoranthene-d10	0.0233		"	0.0333		69.8	40-150			

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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BHJ0358 - EPA 5030 Soil MS

Matrix Spike (BHJ0358-MS1)

Source: 2410130-01

Prepared & Analyzed: 10/10/24

Acenaphthene	0.0170	0.00500	mg/kg	0.0333	ND	50.9	31-137		
Anthracene	0.0179	0.00500	"	0.0333	ND	53.8	30-120		
Benzo (a) anthracene	0.0182	0.00500	"	0.0333	ND	54.6	30-120		
Benzo (a) pyrene	0.0194	0.00500	"	0.0333	ND	58.1	30-120		
Benzo (b) fluoranthene	0.0186	0.00500	"	0.0333	ND	55.9	30-120		
Benzo (k) fluoranthene	0.0192	0.00500	"	0.0333	ND	57.6	30-120		
Chrysene	0.0178	0.00500	"	0.0333	ND	53.5	30-120		
Dibenz (a,h) anthracene	0.0182	0.00500	"	0.0333	ND	54.6	30-120		
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120		
Fluorene	0.0167	0.00500	"	0.0333	ND	50.0	30-120		
Indeno (1,2,3-cd) pyrene	0.0143	0.00500	"	0.0333	ND	42.8	30-120		
Pyrene	0.0189	0.00500	"	0.0333	ND	56.8	35-142		
1-Methylnaphthalene	0.0149	0.00500	"	0.0333	ND	44.7	15-130		
2-Methylnaphthalene	0.0149	0.00500	"	0.0333	0.00577	27.4	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0153		"	0.0333		45.8	40-150		
Surrogate: Fluoranthene-d10	0.0187		"	0.0333		56.2	40-150		

Matrix Spike Dup (BHJ0358-MSD1)

Source: 2410130-01

Prepared & Analyzed: 10/10/24

Acenaphthene	0.0159	0.00500	mg/kg	0.0333	ND	47.8	31-137	6.31	30
Anthracene	0.0169	0.00500	"	0.0333	ND	50.8	30-120	5.78	30
Benzo (a) anthracene	0.0172	0.00500	"	0.0333	ND	51.7	30-120	5.33	30
Benzo (a) pyrene	0.0197	0.00500	"	0.0333	ND	59.1	30-120	1.87	30
Benzo (b) fluoranthene	0.0188	0.00500	"	0.0333	ND	56.4	30-120	1.00	30
Benzo (k) fluoranthene	0.0193	0.00500	"	0.0333	ND	57.8	30-120	0.267	30
Chrysene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	8.12	30
Dibenz (a,h) anthracene	0.0184	0.00500	"	0.0333	ND	55.1	30-120	0.876	30
Fluoranthene	0.0168	0.00500	"	0.0333	ND	50.5	30-120	8.41	30
Fluorene	0.0155	0.00500	"	0.0333	ND	46.6	30-120	7.07	30
Indeno (1,2,3-cd) pyrene	0.0139	0.00500	"	0.0333	ND	41.7	30-120	2.70	30
Pyrene	0.0177	0.00500	"	0.0333	ND	53.1	35-142	6.80	30
1-Methylnaphthalene	0.0148	0.00500	"	0.0333	ND	44.4	15-130	0.633	50
2-Methylnaphthalene	0.0142	0.00500	"	0.0333	0.00577	25.4	15-130	4.70	50
Surrogate: 2-Methylnaphthalene-d10	0.0146		"	0.0333		43.9	40-150		
Surrogate: Fluoranthene-d10	0.0169		"	0.0333		50.8	40-150		

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02
Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

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

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

Batch BHJ0370 - EPA 3050B

Blank (BHJ0370-BLK1)

Prepared & Analyzed: 10/10/24

Boron ND 2.00 mg/L

LCS (BHJ0370-BS1)

Prepared & Analyzed: 10/10/24

Boron 5.11 2.00 mg/L 5.00 102 80-120

Duplicate (BHJ0370-DUP1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Boron 0.118 2.00 mg/L 0.172 36.6 20 QR-01

Matrix Spike (BHJ0370-MS1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Boron 5.07 2.00 mg/L 5.00 0.172 98.0 75-125

Matrix Spike Dup (BHJ0370-MSD1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Boron 5.27 2.00 mg/L 5.00 0.172 102 75-125 3.85 25

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10/14/24 13:20

Total Metals by EPA 6020B - Quality Control
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Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch BHJ0369 - EPA 3050B

Blank (BHJ0369-BLK1)

Prepared & Analyzed: 10/10/24

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 (BHJ0369-BS1)

Prepared & Analyzed: 10/10/24

Arsenic	36.1	0.200	mg/kg wet	39.4	91.7	80-120
Barium	34.7	0.400	"	39.4	88.1	80-120
Cadmium	1.77	0.200	"	1.97	90.1	80-120
Copper	35.9	0.400	"	39.4	91.3	80-120
Lead	17.8	0.200	"	19.7	90.4	80-120
Nickel	36.1	0.400	"	39.4	91.7	80-120
Silver	1.79	0.0200	"	1.97	90.8	80-120
Zinc	36.2	0.400	"	39.4	91.9	80-120
Selenium	3.98	0.260	"	3.94	101	80-120

Duplicate (BHJ0369-DUP1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Arsenic	2.54	0.200	mg/kg dry	2.52	0.512	20
Barium	76.5	0.400	"	68.9	10.5	20
Cadmium	0.0557	0.200	"	0.0558	0.0727	20
Copper	5.29	0.400	"	5.19	1.92	20
Lead	4.81	0.200	"	4.57	5.05	20
Nickel	6.26	0.400	"	6.03	3.63	20
Silver	0.0169	0.0200	"	0.0170	0.618	20
Zinc	27.9	0.400	"	26.2	6.27	20
Selenium	ND	0.260	"	ND		20

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Reported:
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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 BHJ0369 - EPA 3050B

Matrix Spike (BHJ0369-MS1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Arsenic	38.8	0.200	mg/kg dry	39.8	2.52	91.3	75-125
Barium	111	0.400	"	39.8	68.9	107	75-125
Cadmium	1.84	0.200	"	1.99	0.0558	89.7	75-125
Copper	41.3	0.400	"	39.8	5.19	90.9	75-125
Lead	20.9	0.200	"	19.9	4.57	82.2	75-125
Nickel	42.8	0.400	"	39.8	6.03	92.5	75-125
Silver	1.83	0.0200	"	1.99	0.0170	91.0	75-125
Zinc	63.6	0.400	"	39.8	26.2	94.2	75-125
Selenium	3.79	0.260	"	3.98	ND	95.3	75-125

Matrix Spike Dup (BHJ0369-MSD1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Arsenic	38.1	0.200	mg/kg dry	41.3	2.52	86.2	75-125	1.92	25
Barium	104	0.400	"	41.3	68.9	86.2	75-125	6.32	25
Cadmium	1.93	0.200	"	2.06	0.0558	90.9	75-125	4.83	25
Copper	40.1	0.400	"	41.3	5.19	84.5	75-125	3.11	25
Lead	20.7	0.200	"	20.6	4.57	77.9	75-125	1.21	25
Nickel	42.2	0.400	"	41.3	6.03	87.7	75-125	1.36	25
Silver	1.81	0.0200	"	2.06	0.0170	87.1	75-125	0.643	25
Zinc	62.0	0.400	"	41.3	26.2	86.8	75-125	2.63	25
Selenium	3.79	0.260	"	4.13	ND	91.9	75-125	0.0326	25

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Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

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 BHJ0364 - 3060A Mod

Blank (BHJ0364-BLK1)

Prepared & Analyzed: 10/10/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHJ0364-BS1)

Prepared & Analyzed: 10/10/24

Chromium, Hexavalent 26.4 0.30 mg/kg wet 25.0 105 80-120

Duplicate (BHJ0364-DUP1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHJ0364-MS1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Chromium, Hexavalent 29.4 0.30 mg/kg dry 27.2 ND 108 75-125

Matrix Spike Dup (BHJ0364-MSD1)

Source: 2410133-01

Prepared & Analyzed: 10/10/24

Chromium, Hexavalent 28.9 0.30 mg/kg dry 27.2 ND 106 75-125 1.68 20

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Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

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

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

Batch BHJ0343 - General Preparation

Blank (BHJ0343-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

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

LCS (BHJ0343-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

Calcium	5.18	0.0500	mg/L wet	5.00	104	70-130
Magnesium	5.04	0.0500	"	5.00	101	70-130
Sodium	5.24	0.0500	"	5.00	105	70-130

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Project Number: UWRWE-A4187-ABN
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Reported:
10/14/24 13:20

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

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

Batch BHJ0355 - General Preparation

Duplicate (BHJ0355-DUP1)		Source: 2410133-01		Prepared & Analyzed: 10/10/24						
% Solids	91.7		%		91.8			0.0657	20	

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Reported:
10/14/24 13:20

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 BHJ0352 - General Preparation

Blank (BHJ0352-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHJ0352-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

Duplicate (BHJ0352-DUP1)

Source: 2410125-01

Prepared: 10/09/24 Analyzed: 10/10/24

Specific Conductance (EC) 2.86 0.0100 mmhos/cm 2.90 1.25 20

Summit Scientific

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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02

Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

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 BHJ0351 - General Preparation

LCS (BHJ0351-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

pH	9.19	pH Units	9.18	100	95-105
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Duplicate (BHJ0351-DUP1)

Source: 2410125-01

Prepared: 10/09/24 Analyzed: 10/10/24

pH	8.09	pH Units	8.05	0.496	20
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Project Number: UWRWE-A4187-ABN
Project Manager: Paul Henchan

Reported:
10/14/24 13:20

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
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.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
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