

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 10, 2024

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

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

Work Order #2410101

Enclosed are the results of analyses for samples received by Summit Scientific on 10/07/24 16:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Natalie Tessier 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:
10/10/24 13:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01 - 0.5FT	2410101-01	Soil	10/07/24 00:00	10/07/24 16:45
AST02 - 0.5FT	2410101-02	Soil	10/07/24 00:00	10/07/24 16:45
AST03 - 0.5FT	2410101-03	Soil	10/07/24 00:00	10/07/24 16:45
AST04 - 0.5FT	2410101-04	Soil	10/07/24 00:00	10/07/24 16:45
AST05 - 0.5FT	2410101-05	Soil	10/07/24 00:00	10/07/24 16:45
AST06 - 0.5FT	2410101-06	Soil	10/07/24 00:00	10/07/24 16:45
AST07 - 0.5FT	2410101-07	Soil	10/07/24 00:00	10/07/24 16:45
AST08 - 0.5FT	2410101-08	Soil	10/07/24 00:00	10/07/24 16:45

Summit Scientific

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

Lab ID	Page 1 of 1
2410101	

Client: Fremont Environmental	Send Data To: Project Manager: Paul Henehan	Send Invoice To: 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 ToN-RL2W-SA	PO/Billing Codes: WWRWE-A4187-ABN
Sampler Name: Stanley Gilbert	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil			BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	
1	AST01-0.5Ft	10/7/24		2			X			X		X	X	X	X				
2	AST02-0.5Ft									X									
3	AST03-0.5Ft																		
4	AST04-0.5Ft																		
5	AST05-0.5Ft																		
6	AST06-0.5Ft																		
7	AST07-0.5Ft																		
8	AST08-0.5Ft																		
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by:	Date/Time: 10/7/24 16:45	Received by: Summit North	Date/Time: 10/7/24 16:45	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by:	Date/Time: 10/7/24 16:45	Received by:	Date/Time: 10/7/24 16:45	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 8.4	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2410101

Client: Fremont

Client Project ID: Wells Ranch USX AE TUN-R62W-529 202

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

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

Temp (°C) Thermometer #

	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"/>	an 2CE
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 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.

SN

Custodian Printed Name

10/7/24

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:
10/10/24 13:49

AST01 - 0.5FT
2410101-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0314	10/08/24	10/08/24	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0377	94.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0385	96.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.6	101 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0296	10/08/24	10/08/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 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

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AST01 - 0.5FT
2410101-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.29	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B
Barium	23.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.67	0.400	"	"	"	"	"	"
Lead	1.90	0.200	"	"	"	"	"	"
Nickel	2.29	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	8.08	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	81.8	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	21.1	0.0500	"	"	"	"	"	"	
Sodium	22.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.561	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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AST01 - 0.5FT
2410101-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.1		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.637	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

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Project Manager: Paul Henchan

Reported:
10/10/24 13:49

AST02 - 0.5FT
2410101-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0314	10/08/24	10/08/24	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0383	95.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0395	98.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.4	99.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

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

Reported:
10/10/24 13:49

AST02 - 0.5FT
2410101-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0173	51.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0220	66.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0296	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 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:
10/10/24 13:49

AST02 - 0.5FT
2410101-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.75	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B
Barium	45.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.26	0.400	"	"	"	"	"	"
Lead	3.93	0.200	"	"	"	"	"	"
Nickel	4.48	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	15.0	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	63.8	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	17.2	0.0500	"	"	"	"	"	"	
Sodium	16.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.459	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Reported:
 10/10/24 13:49

AST02 - 0.5FT
2410101-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.6		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.512	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.45		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

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Reported:
10/10/24 13:49

AST03 - 0.5FT
2410101-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0314	10/08/24	10/08/24	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0367	91.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.0	104 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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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:
10/10/24 13:49

AST03 - 0.5FT
2410101-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0175	52.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0216	64.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0296	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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:
10/10/24 13:49

AST03 - 0.5FT
2410101-03 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.30	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B	
Barium	26.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.51	0.400	"	"	"	"	"	"	
Lead	2.13	0.200	"	"	"	"	"	"	
Nickel	2.32	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.94	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.2	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	9.59	0.0500	"	"	"	"	"	"	
Sodium	12.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.441	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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 Wellington CO, 80549

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

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

Reported:
 10/10/24 13:49

AST03 - 0.5FT
2410101-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.4		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.330	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.18		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

Summit Scientific

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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST04 - 0.5FT
2410101-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0314	10/08/24	10/09/24	EPA 8260B	
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		"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0386	96.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.4 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.0	104 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST04 - 0.5FT
2410101-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	56.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0239	71.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0297	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST04 - 0.5FT
2410101-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.71	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B	
Barium	33.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.51	0.400	"	"	"	"	"	"	
Lead	2.71	0.200	"	"	"	"	"	"	
Nickel	3.28	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	121	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	31.2	0.0500	"	"	"	"	"	"	
Sodium	23.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.495	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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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:
 10/10/24 13:49

AST04 - 0.5FT
2410101-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.2		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.818	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.65		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

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Fremont Environmental
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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST05 - 0.5FT
2410101-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0314	10/08/24	10/09/24	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0383	95.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0380	94.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.1	105 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST05 - 0.5FT
2410101-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0222	66.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0297	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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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:
10/10/24 13:49

AST05 - 0.5FT
2410101-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.02	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B	
Barium	21.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.25	0.400	"	"	"	"	"	"	
Lead	1.87	0.200	"	"	"	"	"	"	
Nickel	2.01	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.01	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	47.6	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	8.27	0.0500	"	"	"	"	"	"	
Sodium	5.00	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.176	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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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:
 10/10/24 13:49

AST05 - 0.5FT
2410101-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.8		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.234	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

Summit Scientific

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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:
10/10/24 13:49

AST06 - 0.5FT
2410101-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0314	10/08/24	10/09/24	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0381	95.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.1	113 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST06 - 0.5FT
2410101-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0162	48.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0297	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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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:
10/10/24 13:49

AST06 - 0.5FT
2410101-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.26	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B	
Barium	40.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.36	0.400	"	"	"	"	"	"	
Lead	3.85	0.200	"	"	"	"	"	"	
Nickel	4.36	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	16.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	95.3	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	28.3	0.0500	"	"	"	"	"	"	
Sodium	31.4	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.726	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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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:
 10/10/24 13:49

AST06 - 0.5FT
2410101-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.1		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.750	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

Summit Scientific

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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:
10/10/24 13:49

AST07 - 0.5FT
2410101-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0314	10/08/24	10/09/24	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0374	93.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0383	95.7 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.5	108 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

AST07 - 0.5FT
2410101-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0197	59.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0250	75.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0297	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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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:
10/10/24 13:49

AST07 - 0.5FT
2410101-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.80	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B
Barium	28.1	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.93	0.400	"	"	"	"	"	"
Lead	2.46	0.200	"	"	"	"	"	"
Nickel	3.33	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	76.8	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	24.1	0.0500	"	"	"	"	"	"	
Sodium	31.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.811	0.00100	units	1	BHJ0371	10/10/24	10/10/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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 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:
 10/10/24 13:49

AST07 - 0.5FT
2410101-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.3		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.697	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.38		pH Units	1	BHJ0312	10/08/24	10/09/24	EPA 9045D	

Summit Scientific

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

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

Reported:
10/10/24 13:49

AST08 - 0.5FT
2410101-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0314	10/08/24	10/09/24	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0400	99.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	96.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0315	10/08/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.7	102 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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:
10/10/24 13:49

AST08 - 0.5FT
2410101-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0286	10/08/24	10/09/24	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	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	"	"	"	"	"	"	

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0227	68.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0249	74.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0297	10/08/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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:
10/10/24 13:49

AST08 - 0.5FT
2410101-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.60	0.200	mg/kg dry	1	BHJ0335	10/09/24	10/10/24	EPA 6020B
Barium	25.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.96	0.400	"	"	"	"	"	"
Lead	2.39	0.200	"	"	"	"	"	"
Nickel	2.57	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	9.23	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0292	10/08/24	10/08/24	EPA 7196A	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	81.6	0.0500	mg/L dry	1	BHJ0311	10/08/24	10/09/24	EPA 6020B	
Magnesium	24.2	0.0500	"	"	"	"	"	"	
Sodium	26.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.670	0.00100	units	1	BHJ0371	10/10/24	10/10/24	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:
 10/10/24 13:49

AST08 - 0.5FT
2410101-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.5		%	1	BHJ0290	10/08/24	10/08/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.662	0.0100	mmhos/cm	1	BHJ0313	10/08/24	10/09/24	EPA 120.1	

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

Date Sampled: **10/07/24 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.40		pH Units	1	BHJ0312	10/08/24	10/09/24	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:
10/10/24 13:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHJ0314 - EPA 5030 Soil MS

Blank (BHJ0314-BLK1)

Prepared & Analyzed: 10/08/24

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.2</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.7</i>		<i>50-150</i>			

LCS (BHJ0314-BS1)

Prepared & Analyzed: 10/08/24

Benzene	0.140	0.0020	mg/kg	0.150		93.2		70-130			
Toluene	0.139	0.0050	"	0.150		92.8		70-130			
Ethylbenzene	0.141	0.0050	"	0.150		93.9		70-130			
m,p-Xylene	0.284	0.010	"	0.300		94.8		70-130			
o-Xylene	0.147	0.0050	"	0.150		97.9		70-130			
1,2,4-Trimethylbenzene	0.139	0.0050	"	0.150		92.8		70-130			
1,3,5-Trimethylbenzene	0.140	0.0050	"	0.150		93.4		70-130			
Naphthalene	0.148	0.0038	"	0.150		98.9		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>		<i>50-150</i>			

Matrix Spike (BHJ0314-MS1)

Source: 2410069-01

Prepared & Analyzed: 10/08/24

Benzene	0.128	0.0020	mg/kg	0.150	ND	85.1		70-130			
Toluene	0.126	0.0050	"	0.150	ND	83.8		70-130			
Ethylbenzene	0.125	0.0050	"	0.150	ND	83.3		70-130			
m,p-Xylene	0.249	0.010	"	0.300	ND	83.1		70-130			
o-Xylene	0.126	0.0050	"	0.150	ND	83.8		70-130			
1,2,4-Trimethylbenzene	0.137	0.0050	"	0.150	ND	91.6		70-130			
1,3,5-Trimethylbenzene	0.138	0.0050	"	0.150	ND	92.3		70-130			
Naphthalene	0.147	0.0038	"	0.150	ND	98.2		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0406</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0410</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>		<i>50-150</i>			

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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:
 10/10/24 13:49

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHJ0314 - EPA 5030 Soil MS

Matrix Spike Dup (BHJ0314-MSD1)	Source: 2410069-01			Prepared & Analyzed: 10/08/24						
Benzene	0.142	0.0020	mg/kg	0.150	ND	94.9	70-130	10.9	30	
Toluene	0.139	0.0050	"	0.150	ND	92.7	70-130	10.1	30	
Ethylbenzene	0.128	0.0050	"	0.150	ND	85.0	70-130	2.04	30	
m,p-Xylene	0.256	0.010	"	0.300	ND	85.4	70-130	2.75	30	
o-Xylene	0.129	0.0050	"	0.150	ND	85.7	70-130	2.24	30	
1,2,4-Trimethylbenzene	0.139	0.0050	"	0.150	ND	92.6	70-130	1.09	30	
1,3,5-Trimethylbenzene	0.140	0.0050	"	0.150	ND	93.3	70-130	1.14	30	
Naphthalene	0.145	0.0038	"	0.150	ND	97.0	70-130	1.23	30	
Surrogate: 1,2-Dichloroethane-d4	0.0432		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	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:
 10/10/24 13:49

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHJ0315 - EPA 3550A

Blank (BHJ0315-BLK1)

Prepared: 10/08/24 Analyzed: 10/09/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.4		"	12.5		99.0	30-150				

LCS (BHJ0315-BS1)

Prepared: 10/08/24 Analyzed: 10/09/24

C10-C28 (DRO)	466	50	mg/kg	500		93.2	70-130				
Surrogate: <i>o</i> -Terphenyl	13.0		"	12.5		104	30-150				

Matrix Spike (BHJ0315-MS1)

Source: 2410069-01

Prepared: 10/08/24 Analyzed: 10/09/24

C10-C28 (DRO)	438	50	mg/kg	500	21.3	83.4	70-130				
Surrogate: <i>o</i> -Terphenyl	12.7		"	12.5		101	30-150				

Matrix Spike Dup (BHJ0315-MSD1)

Source: 2410069-01

Prepared: 10/08/24 Analyzed: 10/09/24

C10-C28 (DRO)	451	50	mg/kg	500	21.3	85.9	70-130	2.86	20		
Surrogate: <i>o</i> -Terphenyl	12.9		"	12.5		103	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:
10/10/24 13:49

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0286 - EPA 5030 Soil MS

Blank (BHJ0286-BLK1)

Prepared: 10/08/24 Analyzed: 10/09/24

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0208</i>		<i>"</i>	<i>0.0333</i>		<i>62.5</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0246</i>		<i>"</i>	<i>0.0333</i>		<i>73.9</i>	<i>40-150</i>			

LCS (BHJ0286-BS1)

Prepared: 10/08/24 Analyzed: 10/09/24

Acenaphthene	0.0253	0.00500	mg/kg	0.0333		75.9	31-137			
Anthracene	0.0263	0.00500	"	0.0333		78.9	30-120			
Benzo (a) anthracene	0.0277	0.00500	"	0.0333		83.0	30-120			
Benzo (a) pyrene	0.0249	0.00500	"	0.0333		74.7	30-120			
Benzo (b) fluoranthene	0.0261	0.00500	"	0.0333		78.4	30-120			
Benzo (k) fluoranthene	0.0259	0.00500	"	0.0333		77.7	30-120			
Chrysene	0.0262	0.00500	"	0.0333		78.7	30-120			
Dibenz (a,h) anthracene	0.0204	0.00500	"	0.0333		61.2	30-120			
Fluoranthene	0.0247	0.00500	"	0.0333		74.1	30-120			
Fluorene	0.0262	0.00500	"	0.0333		78.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0223	0.00500	"	0.0333		66.8	30-120			
Pyrene	0.0269	0.00500	"	0.0333		80.7	35-142			
1-Methylnaphthalene	0.0237	0.00500	"	0.0333		71.0	35-142			
2-Methylnaphthalene	0.0235	0.00500	"	0.0333		70.4	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0219</i>		<i>"</i>	<i>0.0333</i>		<i>65.6</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0254</i>		<i>"</i>	<i>0.0333</i>		<i>76.2</i>	<i>40-150</i>			

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Wellington CO, 80549

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

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

Reported:
10/10/24 13:49

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0286 - EPA 5030 Soil MS

Matrix Spike (BHJ0286-MS1)	Source: 2410101-01			Prepared: 10/08/24 Analyzed: 10/09/24						
Acenaphthene	0.0245	0.00500	mg/kg	0.0333	ND	73.4	31-137			
Anthracene	0.0261	0.00500	"	0.0333	ND	78.3	30-120			
Benzo (a) anthracene	0.0273	0.00500	"	0.0333	ND	81.9	30-120			
Benzo (a) pyrene	0.0244	0.00500	"	0.0333	ND	73.2	30-120			
Benzo (b) fluoranthene	0.0265	0.00500	"	0.0333	ND	79.6	30-120			
Benzo (k) fluoranthene	0.0260	0.00500	"	0.0333	ND	78.0	30-120			
Chrysene	0.0259	0.00500	"	0.0333	ND	77.8	30-120			
Dibenz (a,h) anthracene	0.0179	0.00500	"	0.0333	ND	53.6	30-120			
Fluoranthene	0.0253	0.00500	"	0.0333	ND	76.0	30-120			
Fluorene	0.0255	0.00500	"	0.0333	ND	76.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0196	0.00500	"	0.0333	ND	58.9	30-120			
Pyrene	0.0293	0.00500	"	0.0333	ND	87.8	35-142			
1-Methylnaphthalene	0.0227	0.00500	"	0.0333	ND	68.0	15-130			
2-Methylnaphthalene	0.0227	0.00500	"	0.0333	ND	68.1	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0210</i>		<i>"</i>	<i>0.0333</i>		<i>63.0</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0255</i>		<i>"</i>	<i>0.0333</i>		<i>76.5</i>	<i>40-150</i>			

Matrix Spike Dup (BHJ0286-MSD1)	Source: 2410101-01			Prepared: 10/08/24 Analyzed: 10/09/24						
Acenaphthene	0.0243	0.00500	mg/kg	0.0333	ND	72.9	31-137	0.686	30	
Anthracene	0.0258	0.00500	"	0.0333	ND	77.3	30-120	1.21	30	
Benzo (a) anthracene	0.0270	0.00500	"	0.0333	ND	81.1	30-120	0.930	30	
Benzo (a) pyrene	0.0243	0.00500	"	0.0333	ND	73.0	30-120	0.285	30	
Benzo (b) fluoranthene	0.0279	0.00500	"	0.0333	ND	83.8	30-120	5.11	30	
Benzo (k) fluoranthene	0.0275	0.00500	"	0.0333	ND	82.6	30-120	5.69	30	
Chrysene	0.0252	0.00500	"	0.0333	ND	75.7	30-120	2.74	30	
Dibenz (a,h) anthracene	0.0153	0.00500	"	0.0333	ND	45.8	30-120	15.5	30	
Fluoranthene	0.0254	0.00500	"	0.0333	ND	76.3	30-120	0.281	30	
Fluorene	0.0253	0.00500	"	0.0333	ND	75.9	30-120	0.908	30	
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.3	30-120	21.9	30	
Pyrene	0.0300	0.00500	"	0.0333	ND	90.1	35-142	2.58	30	
1-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.6	15-130	3.62	50	
2-Methylnaphthalene	0.0227	0.00500	"	0.0333	ND	68.1	15-130	0.0866	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0203</i>		<i>"</i>	<i>0.0333</i>		<i>60.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0254</i>		<i>"</i>	<i>0.0333</i>		<i>76.3</i>	<i>40-150</i>			

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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:
10/10/24 13:49

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

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

Batch BHJ0296 - EPA 3050B

Blank (BHJ0296-BLK1)				Prepared & Analyzed: 10/08/24							
Boron	ND	2.00	mg/L								
LCS (BHJ0296-BS1)				Prepared & Analyzed: 10/08/24							
Boron	4.87	2.00	mg/L	5.00		97.3	80-120				
Duplicate (BHJ0296-DUP1)				Source: 2410095-01			Prepared & Analyzed: 10/08/24				
Boron	0.363	2.00	mg/L		0.216			50.7	20	QR-01	
Matrix Spike (BHJ0296-MS1)				Source: 2410095-01			Prepared & Analyzed: 10/08/24				
Boron	5.06	2.00	mg/L	5.00	0.216	97.0	75-125				
Matrix Spike Dup (BHJ0296-MSD1)				Source: 2410095-01			Prepared & Analyzed: 10/08/24				
Boron	5.19	2.00	mg/L	5.00	0.216	99.4	75-125	2.39	25		

Batch BHJ0297 - EPA 3050B

Blank (BHJ0297-BLK1)				Prepared: 10/08/24 Analyzed: 10/09/24							
Boron	ND	2.00	mg/L								
LCS (BHJ0297-BS1)				Prepared: 10/08/24 Analyzed: 10/09/24							
Boron	4.95	2.00	mg/L	5.00		99.0	80-120				
Duplicate (BHJ0297-DUP1)				Source: 2410101-04			Prepared: 10/08/24 Analyzed: 10/09/24				
Boron	0.159	2.00	mg/L		0.206			25.6	20	QR-01	
Matrix Spike (BHJ0297-MS1)				Source: 2410101-04			Prepared: 10/08/24 Analyzed: 10/09/24				
Boron	4.93	2.00	mg/L	5.00	0.206	94.4	75-125				

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 Wellington CO, 80549

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

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

Reported:
 10/10/24 13:49

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

Summit Scientific

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

Batch BHJ0297 - EPA 3050B

Matrix Spike Dup (BHJ0297-MSD1)

Source: 2410101-04

Prepared: 10/08/24 Analyzed: 10/09/24

Boron	5.14	2.00	mg/L	5.00	0.206	98.8	75-125	4.28	25	
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Summit Scientific

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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:
10/10/24 13:49

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHJ0335 - EPA 3050B

Blank (BHJ0335-BLK1)

Prepared: 10/09/24 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 (BHJ0335-BS1)

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

Arsenic	36.2	0.200	mg/kg wet	37.9	95.7	80-120
Barium	38.7	0.400	"	37.9	102	80-120
Cadmium	1.90	0.200	"	1.89	100	80-120
Copper	37.0	0.400	"	37.9	97.8	80-120
Lead	19.2	0.200	"	18.9	101	80-120
Nickel	36.4	0.400	"	37.9	96.1	80-120
Silver	1.91	0.0200	"	1.89	101	80-120
Zinc	36.1	0.400	"	37.9	95.4	80-120
Selenium	3.71	0.260	"	3.79	98.1	80-120

Duplicate (BHJ0335-DUP1)

Source: 2410101-01

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

Arsenic	1.91	0.200	mg/kg dry	1.29	39.0	20	QR-01
Barium	36.3	0.400	"	23.9	41.1	20	QR-02
Cadmium	0.0948	0.200	"	0.0551	52.9	20	QR-01
Copper	3.91	0.400	"	2.67	37.7	20	QR-01
Lead	3.19	0.200	"	1.90	50.6	20	QR-02
Nickel	3.58	0.400	"	2.29	44.1	20	QR-01
Silver	0.00928	0.0200	"	0.00505	59.0	20	QR-01
Zinc	12.4	0.400	"	8.08	42.5	20	QR-02
Selenium	ND	0.260	"	ND		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:
 10/10/24 13:49

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 BHJ0335 - EPA 3050B

Matrix Spike (BHJ0335-MS1)

Source: 2410101-01

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

Arsenic	40.4	0.200	mg/kg dry	41.6	1.29	93.9	75-125			
Barium	79.3	0.400	"	41.6	23.9	133	75-125			QM-05
Cadmium	2.15	0.200	"	2.08	0.0551	101	75-125			
Copper	41.8	0.400	"	41.6	2.67	94.1	75-125			
Lead	23.2	0.200	"	20.8	1.90	102	75-125			
Nickel	41.5	0.400	"	41.6	2.29	94.2	75-125			
Silver	2.02	0.0200	"	2.08	0.00505	96.7	75-125			
Zinc	50.8	0.400	"	41.6	8.08	103	75-125			
Selenium	3.48	0.260	"	4.16	ND	83.7	75-125			

Matrix Spike Dup (BHJ0335-MSD1)

Source: 2410101-01

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

Arsenic	38.8	0.200	mg/kg dry	39.1	1.29	95.8	75-125	4.04	25	
Barium	74.1	0.400	"	39.1	23.9	128	75-125	6.81	25	QM-05
Cadmium	2.10	0.200	"	1.96	0.0551	105	75-125	2.16	25	
Copper	40.6	0.400	"	39.1	2.67	97.0	75-125	2.90	25	
Lead	23.3	0.200	"	19.6	1.90	109	75-125	0.291	25	
Nickel	41.6	0.400	"	39.1	2.29	101	75-125	0.244	25	
Silver	1.95	0.0200	"	1.96	0.00505	99.5	75-125	3.33	25	
Zinc	49.8	0.400	"	39.1	8.08	107	75-125	2.01	25	
Selenium	3.40	0.260	"	3.91	ND	87.0	75-125	2.33	25	

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:
 10/10/24 13:49

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHJ0292 - 3060A Mod

Blank (BHJ0292-BLK1)

Prepared & Analyzed: 10/08/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHJ0292-BS1)

Prepared & Analyzed: 10/08/24

Chromium, Hexavalent 26.6 0.30 mg/kg wet 25.0 107 80-120

Duplicate (BHJ0292-DUP1)

Source: 2410101-01

Prepared & Analyzed: 10/08/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHJ0292-MS1)

Source: 2410101-01

Prepared & Analyzed: 10/08/24

Chromium, Hexavalent 28.9 0.30 mg/kg dry 26.0 ND 111 75-125

Matrix Spike Dup (BHJ0292-MSD1)

Source: 2410101-01

Prepared & Analyzed: 10/08/24

Chromium, Hexavalent 27.9 0.30 mg/kg dry 26.0 ND 107 75-125 3.66 20

Summit Scientific

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 Wellington CO, 80549

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

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

Reported:
 10/10/24 13:49

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

Summit Scientific

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

Batch BHJ0311 - General Preparation

Blank (BHJ0311-BLK1)

Prepared: 10/08/24 Analyzed: 10/09/24

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

LCS (BHJ0311-BS1)

Prepared: 10/08/24 Analyzed: 10/09/24

Calcium	5.57	0.0500	mg/L wet	5.00		111	70-130			
Magnesium	4.88	0.0500	"	5.00		97.6	70-130			
Sodium	4.99	0.0500	"	5.00		99.8	70-130			

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:
 10/10/24 13:49

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 BHJ0290 - General Preparation

Duplicate (BHJ0290-DUP1)

Source: 2410100-01

Prepared & Analyzed: 10/08/24

% Solids	82.7		%		82.6			0.0893	20	
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Project: Noble - Wells Ranch USX AE T6N-R62W-S29 L02

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

Reported:
 10/10/24 13:49

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 BHJ0313 - General Preparation

Blank (BHJ0313-BLK1)

Prepared: 10/08/24 Analyzed: 10/09/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHJ0313-BS1)

Prepared: 10/08/24 Analyzed: 10/09/24

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHJ0313-DUP1)

Source: 2410100-01

Prepared: 10/08/24 Analyzed: 10/09/24

Specific Conductance (EC) 0.162 0.0100 mmhos/cm 0.164 1.23 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:
 10/10/24 13:49

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 BHJ0312 - General Preparation

LCS (BHJ0312-BS1)

Prepared: 10/08/24 Analyzed: 10/09/24

pH 9.19 pH Units 9.18 100 95-105

Duplicate (BHJ0312-DUP1)

Source: 2410100-01

Prepared: 10/08/24 Analyzed: 10/09/24

pH 8.36 pH Units 8.40 0.477 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:
10/10/24 13:49

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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