

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 23, 2023

Paul Henehan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Beeler 22-12, 13

Work Order #2301292

Enclosed are the results of analyses for samples received by Summit Scientific on 01/17/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Sheely".

Scott Sheely For Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B03@7.0'	2301292-01	Soil	01/17/23 00:00	01/17/23 16:30
B04@7.0'	2301292-02	Soil	01/17/23 00:00	01/17/23 16:30
NW03@6.0'	2301292-03	Soil	01/17/23 00:00	01/17/23 16:30
NW04@6.0'	2301292-04	Soil	01/17/23 00:00	01/17/23 16:30
NE02@6.0'	2301292-05	Soil	01/17/23 00:00	01/17/23 16:30
SW02@6.0'	2301292-06	Soil	01/17/23 00:00	01/17/23 16:30
SE03@6.0'	2301292-07	Soil	01/17/23 00:00	01/17/23 16:30
SE04@6.0'	2301292-08	Soil	01/17/23 00:00	01/17/23 16:30

Summit Scientific

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

# SUMMIT SCIENTIFIC




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

Lab ID

Page 1 of 1

2301292

Client: <b>Fremont Env</b>				Send Data To:				Send Invoice To:											
Address:				Project Manager: <b>Paul Henchan</b>				Company: <b>Noble</b>											
City/State/Zip:				E-Mail: <b>Paulh@fremontenv.com</b>				Project Name/Location:											
Phone:				<b>jeffg@fremontenv.com Ethanb@fremontenv.com</b>				AFE#:											
Sampler Name: <b>J6</b>				Project Name: <b>Beeler 22-12,13</b>				PO/Billing Codes:											
Project Number:				Contact:															
				Preservative				Matrix				Analysis Requested				Special Instructions			
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX+N	TMBS (915)	DRO,ORO,6RO	PAHs (915)	EC,PH,SAR Cation	Metals (915)	
1	B03@7.0'	01/17/23		2			X			X			X	X	X	X	X	X	
2	B04@7.0'																		
3	NW03@6.0'																		
4	NW04@6.0'																		
5	NE02@6.0'																		
6	SW03@6.0'																		
7	SE03@6.0'																		
8	SE04@6.0'																		
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: 	Date/Time: 01/17/23	Received by: SZ	Date/Time: 11723	TAT Business Days	Field DO	Notes:  Bill to Noble
Relinquished by: SZ	Date/Time: 11723 1630	Received by: 	Date/Time: 11723 11030	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	Field Turb.	
Temperature Upon Receipt: 7.0	Corrected Temperature: 	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2301292Client: Fremont Client Project ID: Beecher 22-12,13Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☐ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☐ Water ☐ Other ☐Temp (°C) 7.8 Thermometer # 1

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

Additional Comments (if any):

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

Custodian Printed Name

Date/Time

1-17-23



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B03@7.0'**  
**2301292-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0528	132 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0375	93.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0407	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.8	118 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B03@7.0'**  
**2301292-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0142	42.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.5 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.218</b>	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B03@7.0'**  
**2301292-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.70	0.240	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	9.90	0.481	"	"	"	"	"	"
Cadmium	0.0951	0.240	"	"	"	"	"	"
Copper	4.28	0.481	"	"	"	"	"	"
Lead	6.42	0.240	"	"	"	"	"	"
Nickel	4.69	0.481	"	"	"	"	"	"
Selenium	ND	0.312	"	"	"	"	"	"
Silver	0.0125	0.0240	"	"	"	"	"	"
Zinc	22.2	0.481	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	61.3	0.0601	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	109	0.0601	"	"	"	"	"	"	
Sodium	151	0.0601	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.67	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B03@7.0'**  
**2301292-01 (Soil)**

**Summit Scientific**

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

% Solids	83.2	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.73	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.88		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B04@7.0'**  
**2301292-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0530	133 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0377	94.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.2	122 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B04@7.0'**  
**2301292-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0135	40.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.3 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.308</b>	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B04@7.0'**  
**2301292-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	10.1	0.245	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	19.6	0.491	"	"	"	"	"	"
Cadmium	0.153	0.245	"	"	"	"	"	"
Copper	6.88	0.491	"	"	"	"	"	"
Lead	10.2	0.245	"	"	"	"	"	"
Nickel	6.83	0.491	"	"	"	"	"	"
Selenium	ND	0.319	"	"	"	"	"	"
Silver	0.0339	0.0245	"	"	"	"	"	"
Zinc	31.4	0.491	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	357	0.0613	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	216	0.0613	"	"	"	"	"	"	
Sodium	92.5	0.0613	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.954	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PO Box 1289  
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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**B04@7.0'**  
**2301292-02 (Soil)**

**Summit Scientific**

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

% Solids	81.5	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.28	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.49		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW03@6.0'**  
**2301292-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0547	137 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0381	95.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0420	105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.5	124 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW03@6.0'**  
**2301292-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0140	41.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0170	51.0 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0645	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW03@6.0'**  
**2301292-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	5.34	0.227	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	107	0.454	"	"	"	"	"	"
Cadmium	0.139	0.227	"	"	"	"	"	"
Copper	4.03	0.454	"	"	"	"	"	"
Lead	8.73	0.227	"	"	"	"	"	"
Nickel	5.83	0.454	"	"	"	"	"	"
Selenium	ND	0.295	"	"	"	"	"	"
Silver	0.0322	0.0227	"	"	"	"	"	"
Zinc	22.9	0.454	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	149	0.0567	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	86.2	0.0567	"	"	"	"	"	"	
Sodium	51.2	0.0567	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.826	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW03@6.0'**  
**2301292-03 (Soil)**

**Summit Scientific**

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

% Solids	88.2	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.64	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.74		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW04@6.0'**  
**2301292-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0555	139 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0380	94.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.6	109 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
01/23/23 10:19

**NW04@6.0'**  
**2301292-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0144	43.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0194	58.3 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.188</b>	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW04@6.0'**  
**2301292-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.92	0.239	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	14.3	0.478	"	"	"	"	"	"
Cadmium	0.0956	0.239	"	"	"	"	"	"
Copper	4.10	0.478	"	"	"	"	"	"
Lead	6.28	0.239	"	"	"	"	"	"
Nickel	5.38	0.478	"	"	"	"	"	"
Selenium	ND	0.311	"	"	"	"	"	"
Silver	0.0167	0.0239	"	"	"	"	"	"
Zinc	27.1	0.478	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	478	0.0598	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	234	0.0598	"	"	"	"	"	"	
Sodium	47.0	0.0598	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.441	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NW04@6.0'**  
**2301292-04 (Soil)**

**Summit Scientific**

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

% Solids	83.7	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.66	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.55		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

Summit Scientific

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Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NE02@6.0'**  
**2301292-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0547	137 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0380	95.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.9	119 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NE02@6.0'**  
**2301292-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0159	47.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0239	71.7 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.183	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NE02@6.0'**  
**2301292-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	5.77	0.241	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	37.2	0.482	"	"	"	"	"	"
Cadmium	0.115	0.241	"	"	"	"	"	"
Copper	5.75	0.482	"	"	"	"	"	"
Lead	8.76	0.241	"	"	"	"	"	"
Nickel	5.05	0.482	"	"	"	"	"	"
Selenium	ND	0.313	"	"	"	"	"	"
Silver	0.0304	0.0241	"	"	"	"	"	"
Zinc	36.3	0.482	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	501	0.0603	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	295	0.0603	"	"	"	"	"	"	
Sodium	25.5	0.0603	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.223	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**NE02@6.0'**  
**2301292-05 (Soil)**

**Summit Scientific**

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

% Solids	83.0	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.86	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.55		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SW02@6.0'**  
**2301292-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0540	135 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0405	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.6	124 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SW02@6.0'**  
**2301292-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0265	79.5 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.525	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 00:00**

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

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SW02@6.0'**  
**2301292-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	11.9	0.250	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	34.3	0.499	"	"	"	"	"	"
Cadmium	0.123	0.250	"	"	"	"	"	"
Copper	6.75	0.499	"	"	"	"	"	"
Lead	9.53	0.250	"	"	"	"	"	"
Nickel	6.60	0.499	"	"	"	"	"	"
Selenium	ND	0.325	"	"	"	"	"	"
Silver	0.0295	0.0250	"	"	"	"	"	"
Zinc	27.6	0.499	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	191	0.0624	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	234	0.0624	"	"	"	"	"	"	
Sodium	227	0.0624	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.60	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SW02@6.0'**  
**2301292-06 (Soil)**

**Summit Scientific**

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

% Solids	80.1	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.39	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.64		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE03@6.0'**  
**2301292-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0532	133 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0376	94.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/17/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.4	123 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE03@6.0'**  
**2301292-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0140	42.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0169	50.7 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.201	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE03@6.0'**  
**2301292-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	14.7	0.244	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B
Barium	44.6	0.488	"	"	"	"	"	"
Cadmium	0.166	0.244	"	"	"	"	"	"
Copper	11.1	0.488	"	"	"	"	"	"
Lead	15.3	0.244	"	"	"	"	"	"
Nickel	8.00	0.488	"	"	"	"	"	"
Selenium	ND	0.317	"	"	"	"	"	"
Silver	0.0332	0.0244	"	"	"	"	"	"
Zinc	36.8	0.488	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	416	0.0610	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	276	0.0610	"	"	"	"	"	"	
Sodium	31.3	0.0610	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.293	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: **01/17/23 00:00**

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

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE03@6.0'**  
**2301292-07 (Soil)**

**Summit Scientific**

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

% Solids	82.0	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.43	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.52		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE04@6.0'**  
**2301292-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGA0418	01/17/23	01/17/23	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: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0553	138 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0380	95.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0411	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0419	01/17/23	01/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.9	119 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE04@6.0'**  
**2301292-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0422	01/18/23	01/18/23	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: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0158	47.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0202	60.5 %	40-150		"	"	"	"	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.464</b>	0.0100	mg/L	1	BGA0428	01/18/23	01/20/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/17/23 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 - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE04@6.0'**  
**2301292-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	9.08	0.248	mg/kg dry	1	BGA0430	01/18/23	01/20/23	EPA 6020B	
Barium	59.5	0.497	"	"	"	"	"	"	
Cadmium	0.162	0.248	"	"	"	"	"	"	
Copper	7.87	0.497	"	"	"	"	"	"	
Lead	11.6	0.248	"	"	"	"	"	"	
Nickel	6.67	0.497	"	"	"	"	"	"	
Selenium	0.220	0.323	"	"	"	"	"	"	
Silver	0.0407	0.0248	"	"	"	"	"	"	
Zinc	32.8	0.497	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 01/17/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGA0467	01/19/23	01/19/23	EPA 7196A	

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

Date Sampled: 01/17/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.7	0.0621	mg/L dry	1	BGA0420	01/17/23	01/19/23	EPA 6020B	
Magnesium	66.9	0.0621	"	"	"	"	"	"	
Sodium	12.9	0.0621	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 01/17/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.291	0.00100	units	1	BGA0502	01/20/23	01/20/23	Calculation	

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

Date Sampled: 01/17/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**SE04@6.0'**  
**2301292-08 (Soil)**

**Summit Scientific**

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

% Solids	80.6	%	1	BGA0441	01/18/23	01/18/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.769	0.0100	mmhos/cm	1	BGA0446	01/18/23	01/18/23	EPA 120.1	

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

Date Sampled: **01/17/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BGA0445	01/18/23	01/18/23	EPA 9045D	

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BGA0418 - EPA 5030 Soil MS

##### Blank (BGA0418-BLK1)

Prepared: 01/17/23 Analyzed: 01/18/23

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	0.0510		"	0.0400		128	50-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

##### LCS (BGA0418-BS1)

Prepared: 01/17/23 Analyzed: 01/18/23

Benzene	0.106	0.0020	mg/kg	0.100		106	70-130			
Toluene	0.114	0.0050	"	0.100		114	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.211	0.010	"	0.200		105	70-130			
o-Xylene	0.104	0.0050	"	0.100		104	70-130			
1,2,4-Trimethylbenzene	0.0988	0.0050	"	0.100		98.8	70-130			
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100		102	70-130			
Naphthalene	0.111	0.0038	"	0.100		111	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0497		"	0.0400		124	50-150			
Surrogate: Toluene-d8	0.0377		"	0.0400		94.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

##### Matrix Spike (BGA0418-MS1)

Source: 2301292-01

Prepared: 01/17/23 Analyzed: 01/18/23

Benzene	0.114	0.0020	mg/kg	0.100	ND	114	70-130			
Toluene	0.103	0.0050	"	0.100	ND	103	70-130			
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130			
m,p-Xylene	0.209	0.010	"	0.200	ND	105	70-130			
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130			
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130			
1,3,5-Trimethylbenzene	0.0996	0.0050	"	0.100	ND	99.6	70-130			
Naphthalene	0.106	0.0038	"	0.100	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0521		"	0.0400		130	50-150			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.5	50-150			
Surrogate: 4-Bromofluorobenzene	0.0414		"	0.0400		104	50-150			

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

## 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 BGA0418 - EPA 5030 Soil MS

Matrix Spike Dup (BGA0418-MSD1)	Source: 2301292-01			Prepared: 01/17/23 Analyzed: 01/18/23						
Benzene	0.115	0.0020	mg/kg	0.100	ND	115	70-130	0.210	30	
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	0.843	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	3.87	30	
m,p-Xylene	0.211	0.010	"	0.200	ND	105	70-130	0.614	30	
o-Xylene	0.105	0.0050	"	0.100	ND	105	70-130	2.28	30	
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	4.17	30	
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	2.65	30	
Naphthalene	0.0994	0.0038	"	0.100	ND	99.4	70-130	6.06	30	
Surrogate: 1,2-Dichloroethane-d4	0.0519		"	0.0400		130	50-150			
Surrogate: Toluene-d8	0.0380		"	0.0400		94.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0416		"	0.0400		104	50-150			

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0419 - EPA 3550A**

**Blank (BGA0419-BLK1)**

Prepared: 01/17/23 Analyzed: 01/18/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	13.0		"	12.5	104		30-150			

**LCS (BGA0419-BS1)**

Prepared: 01/17/23 Analyzed: 01/18/23

C10-C28 (DRO)	506	50	mg/kg	500	101		70-130			
Surrogate: o-Terphenyl	12.7		"	12.5	102		30-150			

**Matrix Spike (BGA0419-MS1)**

Source: 2301292-01

Prepared: 01/17/23 Analyzed: 01/18/23

C10-C28 (DRO)	480	50	mg/kg	500	10.8	93.7	70-130			
Surrogate: o-Terphenyl	12.7		"	12.5	101		30-150			

**Matrix Spike Dup (BGA0419-MSD1)**

Source: 2301292-01

Prepared: 01/17/23 Analyzed: 01/18/23

C10-C28 (DRO)	454	50	mg/kg	500	10.8	88.6	70-130	5.49	20	
Surrogate: o-Terphenyl	12.3		"	12.5	98.5		30-150			

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BGA0422 - EPA 5030 Soil MS

##### Blank (BGA0422-BLK1)

Prepared & Analyzed: 01/18/23

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	0.0224	"	0.0333	67.3	40-150
Surrogate: Fluoranthene-d10	0.0388	"	0.0333	116	40-150

##### LCS (BGA0422-BS1)

Prepared & Analyzed: 01/18/23

Acenaphthene	0.0364	0.00500	mg/kg	0.0333	109	31-137
Anthracene	0.0350	0.00500	"	0.0333	105	30-120
Benzo (a) anthracene	0.0299	0.00500	"	0.0333	89.7	30-120
Benzo (a) pyrene	0.0306	0.00500	"	0.0333	91.7	30-120
Benzo (b) fluoranthene	0.0323	0.00500	"	0.0333	96.8	30-120
Benzo (k) fluoranthene	0.0368	0.00500	"	0.0333	110	30-120
Chrysene	0.0364	0.00500	"	0.0333	109	30-120
Dibenz (a,h) anthracene	0.0283	0.00500	"	0.0333	84.9	30-120
Fluoranthene	0.0357	0.00500	"	0.0333	107	30-120
Fluorene	0.0360	0.00500	"	0.0333	108	30-120
Indeno (1,2,3-cd) pyrene	0.0309	0.00500	"	0.0333	92.8	30-120
Pyrene	0.0345	0.00500	"	0.0333	104	35-142
1-Methylnaphthalene	0.0285	0.00500	"	0.0333	85.5	35-142
2-Methylnaphthalene	0.0229	0.00500	"	0.0333	68.6	35-142

Surrogate: 2-Methylnaphthalene-d10	0.0306	"	0.0333	91.7	40-150
Surrogate: Fluoranthene-d10	0.0364	"	0.0333	109	40-150

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

### PAH by EPA Method 8270D SIM - Quality Control

#### Summit Scientific

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

#### Batch BGA0422 - EPA 5030 Soil MS

##### Matrix Spike (BGA0422-MS1)

Source: 2301193-07

Prepared & Analyzed: 01/18/23

Acenaphthene	0.0223	0.00500	mg/kg	0.0333	ND	66.9	31-137		
Anthracene	0.0226	0.00500	"	0.0333	ND	67.8	30-120		
Benzo (a) anthracene	0.0226	0.00500	"	0.0333	ND	67.8	30-120		
Benzo (a) pyrene	0.0199	0.00500	"	0.0333	ND	59.6	30-120		
Benzo (b) fluoranthene	0.0196	0.00500	"	0.0333	ND	58.8	30-120		
Benzo (k) fluoranthene	0.0207	0.00500	"	0.0333	ND	62.1	30-120		
Chrysene	0.0221	0.00500	"	0.0333	ND	66.3	30-120		
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	59.9	30-120		
Fluoranthene	0.0230	0.00500	"	0.0333	ND	69.0	30-120		
Fluorene	0.0227	0.00500	"	0.0333	ND	68.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0208	0.00500	"	0.0333	ND	62.3	30-120		
Pyrene	0.0232	0.00500	"	0.0333	ND	69.7	35-142		
1-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.5	15-130		
2-Methylnaphthalene	0.0191	0.00500	"	0.0333	ND	57.3	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0233		"	0.0333		69.9	40-150		
Surrogate: Fluoranthene-d10	0.0248		"	0.0333		74.4	40-150		

##### Matrix Spike Dup (BGA0422-MSD1)

Source: 2301193-07

Prepared & Analyzed: 01/18/23

Acenaphthene	0.0177	0.00500	mg/kg	0.0333	ND	53.2	31-137	22.8	30
Anthracene	0.0174	0.00500	"	0.0333	ND	52.3	30-120	25.8	30
Benzo (a) anthracene	0.0172	0.00500	"	0.0333	ND	51.5	30-120	27.3	30
Benzo (a) pyrene	0.0189	0.00500	"	0.0333	ND	56.7	30-120	5.01	30
Benzo (b) fluoranthene	0.0149	0.00500	"	0.0333	ND	44.8	30-120	27.0	30
Benzo (k) fluoranthene	0.0157	0.00500	"	0.0333	ND	47.0	30-120	27.5	30
Chrysene	0.0170	0.00500	"	0.0333	ND	51.0	30-120	26.0	30
Dibenz (a,h) anthracene	0.0146	0.00500	"	0.0333	ND	43.8	30-120	31.1	30
Fluoranthene	0.0180	0.00500	"	0.0333	ND	54.0	30-120	24.4	30
Fluorene	0.0178	0.00500	"	0.0333	ND	53.5	30-120	24.2	30
Indeno (1,2,3-cd) pyrene	0.0156	0.00500	"	0.0333	ND	46.7	30-120	28.7	30
Pyrene	0.0174	0.00500	"	0.0333	ND	52.1	35-142	28.9	30
1-Methylnaphthalene	0.0182	0.00500	"	0.0333	ND	54.6	15-130	16.7	50
2-Methylnaphthalene	0.0179	0.00500	"	0.0333	ND	53.8	15-130	6.38	50
Surrogate: 2-Methylnaphthalene-d10	0.0185		"	0.0333		55.5	40-150		
Surrogate: Fluoranthene-d10	0.0186		"	0.0333		55.7	40-150		

QR-02

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0428 - EPA 3050B**

**Blank (BGA0428-BLK1)**

Prepared: 01/18/23 Analyzed: 01/20/23

Boron ND 0.0100 mg/L

**LCS (BGA0428-BS1)**

Prepared: 01/18/23 Analyzed: 01/20/23

Boron 5.83 0.0100 mg/L 5.00 117 80-120

**Duplicate (BGA0428-DUP1)**

Source: 2301246-01

Prepared: 01/18/23 Analyzed: 01/20/23

Boron 0.154 0.0100 mg/L 0.164 6.57 20

**Matrix Spike (BGA0428-MS1)**

Source: 2301246-01

Prepared: 01/18/23 Analyzed: 01/20/23

Boron 6.31 0.0100 mg/L 5.00 0.164 123 75-125

**Matrix Spike Dup (BGA0428-MSD1)**

Source: 2301246-01

Prepared: 01/18/23 Analyzed: 01/20/23

Boron 6.20 0.0100 mg/L 5.00 0.164 121 75-125 1.83 25

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

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

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

**Batch BGA0430 - EPA 3050B**

**Blank (BGA0430-BLK1)**

Prepared: 01/18/23 Analyzed: 01/20/23

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	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

**LCS (BGA0430-BS1)**

Prepared: 01/18/23 Analyzed: 01/20/23

Arsenic	32.2	0.200	mg/kg wet	40.0	80.4	80-120
Barium	33.5	0.400	"	40.0	83.7	80-120
Cadmium	2.00	0.200	"	2.00	99.9	80-120
Copper	33.3	0.400	"	40.0	83.1	80-120
Lead	19.7	0.200	"	20.0	98.3	80-120
Nickel	32.8	0.400	"	40.0	82.0	80-120
Selenium	4.50	0.260	"	4.00	112	80-120
Silver	1.62	0.0200	"	2.00	81.0	80-120
Zinc	32.4	0.400	"	40.0	81.0	80-120

**Duplicate (BGA0430-DUP1)**

Source: 2301292-01

Prepared: 01/18/23 Analyzed: 01/20/23

Arsenic	3.79	0.240	mg/kg dry	3.70	2.49	20
Barium	9.65	0.481	"	9.90	2.55	20
Cadmium	0.0923	0.240	"	0.0951	3.08	20
Copper	4.32	0.481	"	4.28	0.938	20
Lead	5.96	0.240	"	6.42	7.30	20
Nickel	8.73	0.481	"	4.69	60.3	20
Selenium	ND	0.312	"	ND		20
Silver	0.0125	0.0240	"	0.0125	0.00	20
Zinc	22.4	0.481	"	22.2	1.03	20

QR-03

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0430 - EPA 3050B**

Matrix Spike (BGA0430-MS1)		Source: 2301292-01			Prepared: 01/18/23		Analyzed: 01/20/23			
Arsenic	46.6	0.240	mg/kg dry	48.1	3.70	89.2	75-125			
Barium	58.7	0.481	"	48.1	9.90	102	75-125			
Cadmium	1.98	0.240	"	2.40	0.0951	78.4	75-125			
Copper	31.4	0.481	"	48.1	4.28	56.3	75-125			QM-05
Lead	26.2	0.240	"	24.0	6.42	82.1	75-125			
Nickel	31.7	0.481	"	48.1	4.69	56.2	75-125			QM-05
Selenium	5.88	0.312	"	4.81	ND	122	75-125			
Silver	1.89	0.0240	"	2.40	0.0125	78.3	75-125			
Zinc	50.9	0.481	"	48.1	22.2	59.7	75-125			QM-05

Matrix Spike Dup (BGA0430-MSD1)		Source: 2301292-01			Prepared: 01/18/23		Analyzed: 01/20/23			
Arsenic	47.5	0.240	mg/kg dry	48.1	3.70	91.2	75-125	2.06	25	
Barium	63.5	0.481	"	48.1	9.90	112	75-125	7.89	25	
Cadmium	2.19	0.240	"	2.40	0.0951	87.2	75-125	10.1	25	
Copper	32.1	0.481	"	48.1	4.28	57.8	75-125	2.27	25	QM-05
Lead	28.5	0.240	"	24.0	6.42	91.8	75-125	8.48	25	
Nickel	32.4	0.481	"	48.1	4.69	57.7	75-125	2.20	25	QM-05
Selenium	5.74	0.312	"	4.81	ND	119	75-125	2.46	25	
Silver	2.09	0.0240	"	2.40	0.0125	86.4	75-125	9.82	25	
Zinc	51.7	0.481	"	48.1	22.2	61.3	75-125	1.51	25	QM-05

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0467 - 3060A Mod**

**Blank (BGA0467-BLK1)**

Prepared & Analyzed: 01/19/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGA0467-BS1)**

Prepared & Analyzed: 01/19/23

Chromium, Hexavalent 20.2 0.30 mg/kg wet 25.0 80.6 80-120

**Duplicate (BGA0467-DUP1)**

**Source: 2301292-01**

Prepared & Analyzed: 01/19/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGA0467-MS1)**

**Source: 2301292-01**

Prepared & Analyzed: 01/19/23

Chromium, Hexavalent 24.9 0.30 mg/kg dry 30.0 ND 82.8 75-125

**Matrix Spike Dup (BGA0467-MSD1)**

**Source: 2301292-01**

Prepared & Analyzed: 01/19/23

Chromium, Hexavalent 25.5 0.30 mg/kg dry 30.0 ND 85.0 75-125 2.62 20

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Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0420 - General Preparation**

**Blank (BGA0420-BLK1)**

Prepared: 01/17/23 Analyzed: 01/19/23

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

**LCS (BGA0420-BS1)**

Prepared: 01/17/23 Analyzed: 01/19/23

Calcium	5.21	0.0500	mg/L wet	5.00	104	70-130
Magnesium	4.78	0.0500	"	5.00	95.5	70-130
Sodium	5.05	0.0500	"	5.00	101	70-130

Summit Scientific

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Fremont Environmental	Project: Noble - Beeler 22-12, 13	
PO Box 1289	Project Number: [none]	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	01/23/23 10:19

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 BGA0441 - General Preparation

Duplicate (BGA0441-DUP1)	Source: 2301292-01	Prepared & Analyzed: 01/18/23
% Solids	82.7	%83.20.67720

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0446 - General Preparation**

**Blank (BGA0446-BLK1)**

Prepared & Analyzed: 01/18/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGA0446-BS1)**

Prepared & Analyzed: 01/18/23

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

**Duplicate (BGA0446-DUP1)**

**Source: 2301292-01**

Prepared & Analyzed: 01/18/23

Specific Conductance (EC) 1.72 0.0100 mmhos/cm 1.73 0.406 20

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/23/23 10:19

**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 BGA0445 - General Preparation**

**LCS (BGA0445-BS1)**

Prepared & Analyzed: 01/18/23

pH	9.08	pH Units	9.18	98.9	95-105
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**Duplicate (BGA0445-DUP1)**

Source: 2301292-01

Prepared & Analyzed: 01/18/23

pH	7.99	pH Units	7.88	1.39	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Beeler 22-12, 13

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
01/23/23 10:19

### Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
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