

# **FREMONT ENVIRONMENTAL INC.**

June 4, 2024

Mr. Daniel Peterson  
Noble Energy Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, CO 80634

Subject:           **Flowline Closure Data Submittal**  
Benson 13-15  
API # 05-123-12942  
SWSW Sec. 15, T6N, R65W  
Weld County, Colorado  
Fremont Project No. C024-020  
Remediation # 33111

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline closure activities for the Noble Energy Inc. (Noble) Benson 13-15. Impacted soil was not encountered during abandonment activities. Details of the Benson 13-15 closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

Please contact me at (303) 261-6246 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

**FREMONT ENVIRONMENTAL INC.**



Stanley Gilbert  
Environmental Scientist

Attachments:

Facility Closure Checklist  
Tables  
Figures  
Photos  
Laboratory Report

**1759 REDWING LANE, BROOMFIELD, CO 80020  
(303) 956-8714 (DIRECT)**

# Flowline Closure Checklist

## COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

<i>Additional Attachments:</i>		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
<i>Site Name &amp; COGCC Facility Number:</i>		<i>Date:</i>						<i>Remediation Project #:</i>
<i>Associated Wells:</i>		<i>Age of Site:</i>						<i>Number of Photos Attached:</i>
<i>Starting point: (GPS coordinates and descriptions)</i>								
<i>End point: (GPS coordinates and descriptions)</i>								
<i>USCS Soil Type:</i>					<i>Estimated Depth to Groundwater:</i>			
<i>Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i>								
<i>Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i>								
<b>Flowlines</b>								
<i>Flowline type</i>								
<i>Depth</i>								
<i>Age</i>								
<i>Length</i>								
<i>Construction Material</i>								
<i>Were flowlines pulled?</i>								
<i>Visual Integrity of lines</i>								
<i>Visual impacts if trenched</i>								
<i>PID Readings if trenched</i>								
<i>Sample taken? Location/Sample ID#</i>								
<i>Photo Number(s)</i>								
<i>Other observations regarding on location flowlines:</i>								
<b>Summary</b>								
<i>Was impacted soil identified?</i> <div> No Yes - less than 10 cubic yards Yes - more than 10 cubic yards </div>								
<i>Total number of samples field screened:</i>					<i>Total number of samples collected:</i>			
<i>Highest PID Reading:</i>					<i>Total number of samples submitted to lab for analysis:</i>			
<i>If more than 10 cubic yards of impacted soil were observed:</i>								
<i>Vertical extent:</i>					<i>Estimated spill volume:</i>			
<i>Lateral extent:</i>					<i>Volume of soil removed:</i>			
<i>Is additional investigation required?</i>								
<i>Was groundwater encountered during the investigation?</i> <div> No Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils </div>								
<i>Measured depth to groundwater:</i>					<i>Was remedial groundwater removal conducted? Yes No</i>			
<i>Date Groundwater was encountered:</i>					<i>Commencement date of removal:</i>			
<i>Sheen on groundwater? Yes No</i>					<i>Volume of groundwater removed prior to sampling:</i>			
<i>Free product observed? Yes No</i>					<i>Volume of groundwater removed post sampling:</i>			
<i>Total number of samples collected:</i>					<i>Total Volume of groundwater removed:</i>			
<i>Total number of samples submitted to lab for analysis:</i>								

TABLE 1  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
BENSON 13-15, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C024-020

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4- Trimethyl- Benzene (mg/kg)	1,3,5- Trimethyl- Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500**		
FL01 4'	01/26/2024	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL03 3'	01/26/2024	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the ECMC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

Green highlighted cells indicate soil removed via excavation

\* Indicates laboratory minimum detection limit in excess of SSL

\*\* Summation of GRO+DRO+ORO must be less than 500 mg/kg

NA - Not analyzed

TABLE 2  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
BENSON 13-15, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C024-020

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01 4'	01/26/2024	4'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL03 3'	01/26/2024	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Bold faced values exceed the ECMC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

\* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

Green highlighted cells indicate soil removed via excavation

**TABLE 3**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE ENERGY INC.**  
**BENSON 13-15, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C024-020**

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
Max. Background Concentration (or Concentration Range)			8.77	-	-	-
FL01 4'	01/26/2024	4'	<b>8.32</b>	0.118	0.0359	<2.00
FL03 3'	01/26/2024	3'	<b>8.49</b>	0.214	0.691	<2.00
BKG 3'	01/26/2024	3'	<b>8.67</b>	0.157	0.388	<2.00
BKG 4'	01/26/2024	4'	<b>8.77</b>	0.112	0.0454	<2.00

Bold faced, yellow highlighted values exceed the ECMC Table 915-1 concentrations

Green highlighted cells indicate soil removed via excavation

Orange highlighted cells exceed of the maximum background concentration, or concentration range

Yellow highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

NA - Not analyzed

TABLE 4  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
BENSON 13-15, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C024-020

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
125% Max. Background Concentration			3.44	95.0	0.429	-	8.38	15.0	5.88	-	0.0408	27.1
FL01 4'	01/26/2024	4'	<b>2.04</b>	81.6	<0.200	<0.30	3.49	4.67	3.81	<0.260	0.0274	11.9
FL03 3'	01/26/2024	3'	<b>2.31</b>	<b>86.3</b>	<b>0.389</b>	<0.30	6.96	<b>15.7</b>	4.86	<0.260	0.0342	21.3
BKG 3'	01/26/2024	3'	<b>2.75</b>	76.0	0.343	<0.30	6.70	12.0	4.70	<0.260	0.0326	21.7
BKG 4'	01/26/2024	4'	<b>1.93</b>	56.8	<0.200	<0.30	3.27	3.52	3.18	<0.260	<0.0200	11.6

Bold faced values exceed the ECMC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

Orange highlighted cells exceed 125% of the maximum background concentration

\* Indicates laboratory minimum detection limit in excess of SSL

Green highlighted cells indicate soil removed via excavation

NA - Not analyzed

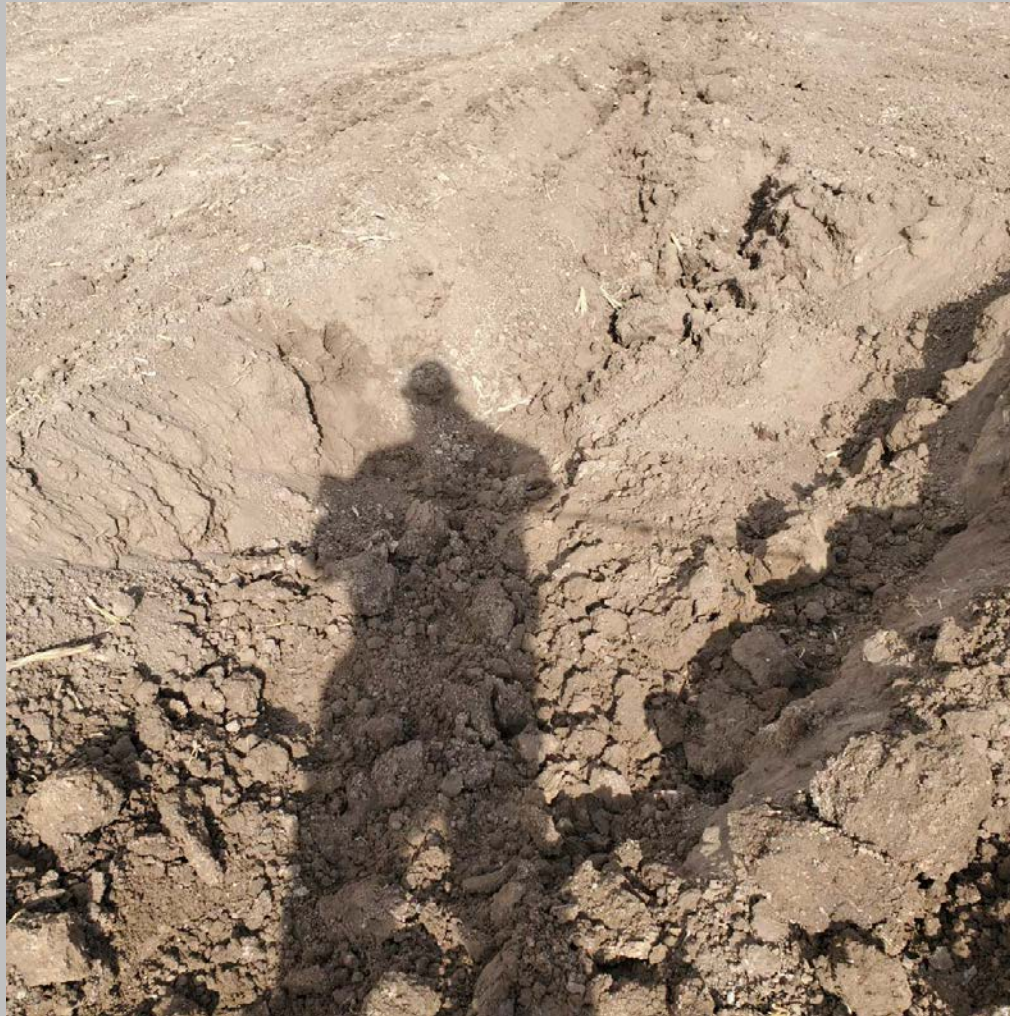
## Photo Log



***Description:***

#1- FL01 - No staining or odor





***Description:***

#2- FL02. - No staining or odor



## Photo Log



***Description:***

#3- FL03 - No staining or odor

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 05, 2024

Paul Henchan

Fremont Environmental

PO Box 1289

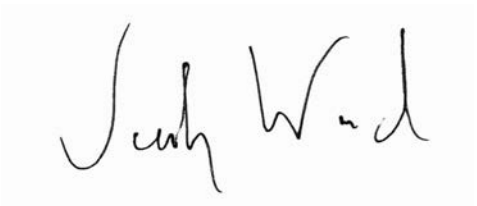
Wellington, CO 80549

RE: Noble - Benson 13-15

Work Order #2401486

Enclosed are the results of analyses for samples received by Summit Scientific on 01/26/24 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 "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01 4'	2401486-01	Soil	01/26/24 11:35	01/26/24 16:30
FL03 3'	2401486-02	Soil	01/26/24 11:30	01/26/24 16:30
BKG 3'	2401486-03	Soil	01/26/24 11:25	01/26/24 16:30
BKG 4'	2401486-04	Soil	01/26/24 11:20	01/26/24 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.*



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

Lab ID	Page 1 of 1
2401486	

Client: Fremont Environmental		Send Data To: Project Manager: Paul Henchan	Send Invoice To: Company: Noble
Address:		E-Mail: Fremont Distribution List	Project Name/Location:
City/State/Zip:			AFE#:
Phone: 303-261-6246		Project Name: BENSON 13-15	PO/Billing Codes: UWRWE-A2591-ABN
Sampler Name: Stanley Gilbert		Project Number:	Contact: Mike Montoya

					Preservative				Matrix				Analysis Requested						Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD	
1	FLO1 4'	1/26/24	11:35	2			X			X			X	X	X	X	X			
2	FLO3 3'	I	11:30	2			I			I			X	X	X	X	X			
3	BKG 3'		11:25	2			I			I						X	X			
4	BKG 4'	I	11:20	2			I			I						X	X			
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by:	Date/Time: 1/26/24 15:00	Received by: Summit North	Date/Time: 1/26/24 15:00	TAT Business Days	Field DO	Notes:
Relinquished by: S2	Date/Time: 1/26/24 11:30	Received by:	Date/Time: 1/26/24 11:30	Same Day	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: 7.1		Corrected Temperature: 0		IR gun #: 1	HNO3 lot #:	



S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2401486Client: FremontClient Project ID: Benson 13-15Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐

Airbill #: \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

7.1

Thermometer #

1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
If custody seals are present, are they intact? <sup>(1)</sup>	<input 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 <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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no times
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



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL01 4'**  
**2401486-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHA1001	01/29/24	01/31/24	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: **01/26/24 11:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0427	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0378	94.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0386	96.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHA1003	01/29/24	01/31/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	9.37	75.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL01 4'**  
**2401486-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0988	01/29/24	01/29/24	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: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0202	60.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0232	69.6 %	40-150		"	"	"	"	

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

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0060	02/02/24	02/07/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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.





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL01 4'**  
**2401486-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.04	0.200	mg/kg dry	1	BHA1111	01/31/24	02/03/24	EPA 6020B
Barium	81.6	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.49	0.400	"	"	"	"	"	"
Lead	4.67	0.200	"	"	"	"	"	"
Nickel	3.81	0.400	"	"	"	"	"	"
Silver	0.0274	0.0200	"	"	"	"	"	"
Zinc	11.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA1017	01/29/24	01/31/24	EPA 7196A	

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

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	181	0.0500	mg/L dry	1	BHA0987	01/29/24	02/06/24	EPA 6020B	
Magnesium	20.1	0.0500	"	"	"	"	"	"	
Sodium	1.91	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0359	0.00100	units	1	BHB0225	02/07/24	02/07/24	Calculation	

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

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL01 4'**  
**2401486-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.7			%	1	BHA1081	01/31/24	01/31/24	Calculation	

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

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.118	0.0100		mmhos/cm	1	BHA1038	01/30/24	01/30/24	EPA 120.1	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL01 4'**  
**2401486-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.32</b>			pH Units	1	BHB0799	02/26/24	02/26/24	EPA 9045D	I-04

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL03 3'**  
**2401486-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHA1001	01/29/24	01/31/24	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: **01/26/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0456	114 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0395	98.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHA1003	01/29/24	01/31/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.76	70.1 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL03 3'**  
**2401486-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHA0988	01/29/24	01/29/24	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: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0178	53.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.6 %	40-150		"	"	"	"	

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

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0060	02/02/24	02/07/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL03 3'**  
**2401486-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.31	0.200	mg/kg dry	1	BHA1111	01/31/24	02/03/24	EPA 6020B
Barium	86.3	0.400	"	"	"	"	"	"
Copper	6.96	0.400	"	"	"	"	"	"
Nickel	4.86	0.400	"	"	"	"	"	"
Silver	0.0342	0.0200	"	"	"	"	"	"
Zinc	21.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA1017	01/29/24	01/31/24	EPA 7196A	

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

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	57.5	0.0500	mg/L dry	1	BHA0987	01/29/24	02/06/24	EPA 6020B	
Magnesium	13.4	0.0500	"	"	"	"	"	"	
Sodium	22.4	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.691	0.00100	units	1	BHB0225	02/07/24	02/07/24	Calculation	

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

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.8		%	1	BHA1081	01/31/24	01/31/24	Calculation	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL03 3'**  
**2401486-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>0.214</b>	0.0100		mmhos/cm	1	BHA1038	01/30/24	01/30/24	EPA 120.1	

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

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.49</b>			pH Units	1	BHA1037	01/30/24	01/30/24	EPA 9045D	

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.*





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**FL03 3'**  
**2401486-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **01/26/24 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Cadmium</b>	<b>0.389</b>	0.200		mg/kg dry	1	BHB0663	02/21/24	02/22/24	EPA 6020B	
<b>Lead</b>	<b>15.7</b>	0.200		"	"	"	"	"	"	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**BKG 3'**  
**2401486-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHB0060	02/02/24	02/07/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.75	0.200		mg/kg dry	1	BHA1111	01/31/24	02/03/24	EPA 6020B	
Barium	76.0	0.400		"	"	"	"	"	"	
Cadmium	0.343	0.200		"	"	"	"	"	"	
Copper	6.70	0.400		"	"	"	"	"	"	
Lead	12.0	0.200		"	"	"	"	"	"	
Nickel	4.70	0.400		"	"	"	"	"	"	
Silver	0.0326	0.0200		"	"	"	"	"	"	
Zinc	21.7	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHA1017	01/29/24	01/31/24	EPA 7196A	

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

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	63.1	0.0500		mg/L dry	1	BHA0987	01/29/24	02/06/24	EPA 6020B	
Magnesium	20.7	0.0500		"	"	"	"	"	"	
Sodium	13.9	0.0500		"	"	"	"	"	"	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**BKG 3'**  
**2401486-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.388</b>	0.00100	units	1	BHB0225	02/07/24	02/07/24	Calculation	

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

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>81.0</b>		%	1	BHA1081	01/31/24	01/31/24	Calculation	

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

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.157</b>	0.0100	mmhos/cm	1	BHA1038	01/30/24	01/30/24	EPA 120.1	

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

Date Sampled: **01/26/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.67</b>		pH Units	1	BHA1037	01/30/24	01/30/24	EPA 9045D	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**BKG 4'**  
**2401486-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHB0060	02/02/24	02/07/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.93	0.200	mg/kg dry	1	BHA1111	01/31/24	02/03/24	EPA 6020B	
Barium	56.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.27	0.400	"	"	"	"	"	"	
Lead	3.52	0.200	"	"	"	"	"	"	
Nickel	3.18	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	11.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHA1017	01/29/24	01/31/24	EPA 7196A	

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

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	181	0.0500	mg/L dry	1	BHA0987	01/29/24	02/06/24	EPA 6020B	
Magnesium	17.8	0.0500	"	"	"	"	"	"	
Sodium	2.39	0.0500	"	"	"	"	"	"	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**BKG 4'**  
**2401486-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0454	0.00100	units	1	BHB0225	02/07/24	02/07/24	Calculation	

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

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.3		%	1	BHA1081	01/31/24	01/31/24	Calculation	

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

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.112	0.0100	mmhos/cm	1	BHA1038	01/30/24	01/30/24	EPA 120.1	

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

Date Sampled: **01/26/24 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.77		pH Units	1	BHA1037	01/30/24	01/30/24	EPA 9045D	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

## 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 BHA1001 - EPA 5030 Soil MS

##### Blank (BHA1001-BLK1)

Prepared & Analyzed: 01/29/24

Benzene	ND	0.0020	mg/kg
Toluene	ND	0.0050	"
Ethylbenzene	ND	0.0050	"
Xylenes (total)	ND	0.010	"
1,2,4-Trimethylbenzene	ND	0.0050	"
1,3,5-Trimethylbenzene	ND	0.0050	"
Naphthalene	ND	0.0038	"
Gasoline Range Hydrocarbons	ND	0.50	"

Surrogate: 1,2-Dichloroethane-d4	0.0413	"	0.0400	103	50-150
Surrogate: Toluene-d8	0.0401	"	0.0400	100	50-150
Surrogate: 4-Bromofluorobenzene	0.0401	"	0.0400	100	50-150

##### LCS (BHA1001-BS1)

Prepared: 01/29/24 Analyzed: 01/30/24

Benzene	0.0788	0.0020	mg/kg	0.100	78.8	70-130
Toluene	0.0960	0.0050	"	0.100	96.0	70-130
Ethylbenzene	0.0951	0.0050	"	0.100	95.1	70-130
m,p-Xylene	0.197	0.010	"	0.200	98.3	70-130
o-Xylene	0.0969	0.0050	"	0.100	96.9	70-130
1,2,4-Trimethylbenzene	0.0932	0.0050	"	0.100	93.2	70-130
1,3,5-Trimethylbenzene	0.0934	0.0050	"	0.100	93.4	70-130
Naphthalene	0.0854	0.0038	"	0.100	85.4	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0399	"	0.0400	99.8	50-150
Surrogate: Toluene-d8	0.0398	"	0.0400	99.5	50-150
Surrogate: 4-Bromofluorobenzene	0.0386	"	0.0400	96.4	50-150

##### Matrix Spike (BHA1001-MS1)

Source: 2401156-01

Prepared: 01/29/24 Analyzed: 01/30/24

Benzene	0.0744	0.0020	mg/kg	0.100	ND	74.4	70-130
Toluene	0.0854	0.0050	"	0.100	ND	85.4	70-130
Ethylbenzene	0.0844	0.0050	"	0.100	ND	84.4	70-130
m,p-Xylene	0.170	0.010	"	0.200	ND	85.2	70-130
o-Xylene	0.0850	0.0050	"	0.100	ND	85.0	70-130
1,2,4-Trimethylbenzene	0.0717	0.0050	"	0.100	ND	71.7	70-130
1,3,5-Trimethylbenzene	0.0761	0.0050	"	0.100	ND	76.1	70-130
Naphthalene	0.0592	0.0038	"	0.100	0.00453	54.6	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0387	"	0.0400	96.8	50-150
Surrogate: Toluene-d8	0.0370	"	0.0400	92.6	50-150
Surrogate: 4-Bromofluorobenzene	0.0387	"	0.0400	96.8	50-150

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHA1001 - EPA 5030 Soil MS**

Matrix Spike Dup (BHA1001-MSD1)	Source: 2401156-01			Prepared: 01/29/24 Analyzed: 01/30/24						
Benzene	0.0672	0.0020	mg/kg	0.100	ND	67.2	70-130	10.2	30	QM-07
Toluene	0.0843	0.0050	"	0.100	ND	84.3	70-130	1.31	30	
Ethylbenzene	0.0810	0.0050	"	0.100	ND	81.0	70-130	4.17	30	
m,p-Xylene	0.162	0.010	"	0.200	ND	80.9	70-130	5.26	30	
o-Xylene	0.0835	0.0050	"	0.100	ND	83.5	70-130	1.74	30	
1,2,4-Trimethylbenzene	0.0694	0.0050	"	0.100	ND	69.4	70-130	3.32	30	QM-07
1,3,5-Trimethylbenzene	0.0766	0.0050	"	0.100	ND	76.6	70-130	0.746	30	
Naphthalene	0.0618	0.0038	"	0.100	0.00453	57.3	70-130	4.37	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0403		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			

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.*





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHA1003 - EPA 3550A**

**Blank (BHA1003-BLK1)**

Prepared & Analyzed: 01/29/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	14.1		"	12.5		112	30-150			

**LCS (BHA1003-BS1)**

Prepared & Analyzed: 01/29/24

C10-C28 (DRO)	393	50	mg/kg	500		78.6	70-130			
Surrogate: o-Terphenyl	13.2		"	12.5		106	30-150			

**Matrix Spike (BHA1003-MS1)**

Source: 2401156-01

Prepared & Analyzed: 01/29/24

C10-C28 (DRO)	390	50	mg/kg	500	5.35	77.0	70-130			
Surrogate: o-Terphenyl	10.1		"	12.5		81.0	30-150			

**Matrix Spike Dup (BHA1003-MSD1)**

Source: 2401156-01

Prepared & Analyzed: 01/29/24

C10-C28 (DRO)	421	50	mg/kg	500	5.35	83.2	70-130	7.67	20	
Surrogate: o-Terphenyl	9.77		"	12.5		78.2	30-150			

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

### 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 BHA0988 - EPA 5030 Soil MS

##### Blank (BHA0988-BLK1)

Prepared & Analyzed: 01/29/24

Acenaphthene	ND	0.00500	mg/kg
Anthracene	ND	0.00500	"
Benzo (a) anthracene	ND	0.00500	"
Benzo (a) pyrene	ND	0.00500	"
Benzo (b) fluoranthene	ND	0.00500	"
Benzo (k) fluoranthene	ND	0.00500	"
Chrysene	ND	0.00500	"
Dibenz (a,h) anthracene	ND	0.00500	"
Fluoranthene	ND	0.00500	"
Fluorene	ND	0.00500	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"
Pyrene	ND	0.00500	"
1-Methylnaphthalene	ND	0.00500	"
2-Methylnaphthalene	ND	0.00500	"

Surrogate: 2-Methylnaphthalene-d10	0.0307	"	0.0333	92.0	40-150
Surrogate: Fluoranthene-d10	0.0313	"	0.0333	93.8	40-150

##### LCS (BHA0988-BS1)

Prepared & Analyzed: 01/29/24

Acenaphthene	0.0332	0.00500	mg/kg	0.0333	99.5	31-137
Anthracene	0.0340	0.00500	"	0.0333	102	30-120
Benzo (a) anthracene	0.0153	0.00500	"	0.0333	45.9	30-120
Benzo (a) pyrene	0.0272	0.00500	"	0.0333	81.6	30-120
Benzo (b) fluoranthene	0.0240	0.00500	"	0.0333	72.1	30-120
Benzo (k) fluoranthene	0.0307	0.00500	"	0.0333	92.2	30-120
Chrysene	0.0342	0.00500	"	0.0333	103	30-120
Dibenz (a,h) anthracene	0.0265	0.00500	"	0.0333	79.6	30-120
Fluoranthene	0.0330	0.00500	"	0.0333	99.0	30-120
Fluorene	0.0330	0.00500	"	0.0333	98.9	30-120
Indeno (1,2,3-cd) pyrene	0.0381	0.00500	"	0.0333	114	30-120
Pyrene	0.0364	0.00500	"	0.0333	109	35-142
1-Methylnaphthalene	0.0392	0.00500	"	0.0333	118	35-142
2-Methylnaphthalene	0.0279	0.00500	"	0.0333	83.7	35-142

Surrogate: 2-Methylnaphthalene-d10	0.0407	"	0.0333	122	40-150
Surrogate: Fluoranthene-d10	0.0346	"	0.0333	104	40-150

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

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

### Summit Scientific

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

#### Batch BHA0988 - EPA 5030 Soil MS

##### Matrix Spike (BHA0988-MS1)

Source: 2401486-01

Prepared & Analyzed: 01/29/24

Acenaphthene	0.0242	0.00500	mg/kg	0.0333	ND	72.6	31-137		
Anthracene	0.0249	0.00500	"	0.0333	ND	74.8	30-120		
Benzo (a) anthracene	0.0150	0.00500	"	0.0333	ND	45.0	30-120		
Benzo (a) pyrene	0.0219	0.00500	"	0.0333	ND	65.7	30-120		
Benzo (b) fluoranthene	0.0183	0.00500	"	0.0333	ND	54.8	30-120		
Benzo (k) fluoranthene	0.0228	0.00500	"	0.0333	ND	68.3	30-120		
Chrysene	0.0252	0.00500	"	0.0333	ND	75.7	30-120		
Dibenz (a,h) anthracene	0.0218	0.00500	"	0.0333	ND	65.5	30-120		
Fluoranthene	0.0255	0.00500	"	0.0333	ND	76.4	30-120		
Fluorene	0.0247	0.00500	"	0.0333	ND	74.1	30-120		
Indeno (1,2,3-cd) pyrene	0.0307	0.00500	"	0.0333	ND	92.0	30-120		
Pyrene	0.0268	0.00500	"	0.0333	ND	80.4	35-142		
1-Methylnaphthalene	0.0285	0.00500	"	0.0333	ND	85.4	15-130		
2-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.4	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0281		"	0.0333		84.3	40-150		
Surrogate: Fluoranthene-d10	0.0267		"	0.0333		80.1	40-150		

##### Matrix Spike Dup (BHA0988-MSD1)

Source: 2401486-01

Prepared & Analyzed: 01/29/24

Acenaphthene	0.0210	0.00500	mg/kg	0.0333	ND	63.1	31-137	14.0	30
Anthracene	0.0217	0.00500	"	0.0333	ND	65.1	30-120	13.9	30
Benzo (a) anthracene	0.0138	0.00500	"	0.0333	ND	41.4	30-120	8.37	30
Benzo (a) pyrene	0.0205	0.00500	"	0.0333	ND	61.4	30-120	6.75	30
Benzo (b) fluoranthene	0.0167	0.00500	"	0.0333	ND	50.2	30-120	8.87	30
Benzo (k) fluoranthene	0.0202	0.00500	"	0.0333	ND	60.7	30-120	11.8	30
Chrysene	0.0220	0.00500	"	0.0333	ND	65.9	30-120	13.9	30
Dibenz (a,h) anthracene	0.0201	0.00500	"	0.0333	ND	60.3	30-120	8.25	30
Fluoranthene	0.0225	0.00500	"	0.0333	ND	67.5	30-120	12.4	30
Fluorene	0.0216	0.00500	"	0.0333	ND	64.9	30-120	13.1	30
Indeno (1,2,3-cd) pyrene	0.0272	0.00500	"	0.0333	ND	81.5	30-120	12.1	30
Pyrene	0.0237	0.00500	"	0.0333	ND	71.1	35-142	12.3	30
1-Methylnaphthalene	0.0251	0.00500	"	0.0333	ND	75.4	15-130	12.4	50
2-Methylnaphthalene	0.0222	0.00500	"	0.0333	ND	66.7	15-130	3.48	50
Surrogate: 2-Methylnaphthalene-d10	0.0228		"	0.0333		68.4	40-150		
Surrogate: Fluoranthene-d10	0.0234		"	0.0333		70.2	40-150		

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHB0060 - EPA 3050B**

**Blank (BHB0060-BLK1)**

Prepared: 02/02/24 Analyzed: 02/07/24

Boron ND 2.00 mg/L

**LCS (BHB0060-BS1)**

Prepared: 02/02/24 Analyzed: 02/07/24

Boron 4.83 2.00 mg/L 5.00 96.7 80-120

**Duplicate (BHB0060-DUP1)**

**Source: 2401486-01**

Prepared: 02/02/24 Analyzed: 02/07/24

Boron 0.119 2.00 mg/L 0.116 2.39 20

**Matrix Spike (BHB0060-MS1)**

**Source: 2401486-01**

Prepared: 02/02/24 Analyzed: 02/07/24

Boron 5.29 2.00 mg/L 5.00 0.116 104 75-125

**Matrix Spike Dup (BHB0060-MSD1)**

**Source: 2401486-01**

Prepared: 02/02/24 Analyzed: 02/07/24

Boron 5.36 2.00 mg/L 5.00 0.116 105 75-125 1.30 25

Summit Scientific

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



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHA1111 - EPA 3050B**

**Blank (BHA1111-BLK1)**

Prepared: 01/31/24 Analyzed: 02/03/24

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 (BHA1111-BS1)**

Prepared: 01/31/24 Analyzed: 02/03/24

Arsenic	35.5	0.200	mg/kg wet	40.0	88.7	80-120
Barium	39.3	0.400	"	40.0	98.3	80-120
Cadmium	2.05	0.200	"	2.00	102	80-120
Copper	47.7	0.400	"	40.0	119	80-120
Lead	20.2	0.200	"	20.0	101	80-120
Nickel	45.9	0.400	"	40.0	115	80-120
Silver	2.08	0.0200	"	2.00	104	80-120
Zinc	48.1	0.400	"	40.0	120	80-120
Selenium	3.61	0.260	"	4.00	90.2	80-120

**Duplicate (BHA1111-DUP1)**

Source: 2401465-01

Prepared: 01/31/24 Analyzed: 02/03/24

Arsenic	3.70	0.200	mg/kg dry	4.07	9.65	20	
Barium	80.4	0.400	"	124	42.5	20	QM-07
Cadmium	0.145	0.200	"	0.189	26.8	20	QM-07
Copper	7.05	0.400	"	7.60	7.42	20	
Lead	8.21	0.200	"	8.54	3.94	20	
Nickel	6.51	0.400	"	7.27	11.1	20	
Silver	0.0226	0.0200	"	0.0199	12.8	20	
Zinc	22.2	0.400	"	23.3	4.97	20	
Selenium	ND	0.260	"	ND		20	

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHA1111 - EPA 3050B**

Matrix Spike (BHA1111-MS1)		Source: 2401465-01			Prepared: 01/31/24 Analyzed: 02/03/24					
Arsenic	42.6	0.200	mg/kg dry	45.2	4.07	85.2	75-125			
Barium	120	0.400	"	45.2	124	NR	75-125			QM-07
Cadmium	2.53	0.200	"	2.26	0.189	104	75-125			
Copper	35.6	0.400	"	45.2	7.60	62.1	75-125			QM-07
Lead	32.8	0.200	"	22.6	8.54	107	75-125			
Nickel	35.0	0.400	"	45.2	7.27	61.3	75-125			QM-07
Silver	2.26	0.0200	"	2.26	0.0199	99.2	75-125			
Zinc	52.9	0.400	"	45.2	23.3	65.4	75-125			QM-07
Selenium	3.24	0.260	"	4.52	ND	71.7	75-125			QM-07

Matrix Spike Dup (BHA1111-MSD1)		Source: 2401465-01			Prepared: 01/31/24 Analyzed: 02/03/24					
Arsenic	42.4	0.200	mg/kg dry	45.2	4.07	84.8	75-125	0.482	25	
Barium	118	0.400	"	45.2	124	NR	75-125	2.08	25	QM-07
Cadmium	2.52	0.200	"	2.26	0.189	103	75-125	0.680	25	
Copper	36.4	0.400	"	45.2	7.60	63.7	75-125	1.99	25	QM-07
Lead	33.0	0.200	"	22.6	8.54	108	75-125	0.571	25	
Nickel	35.8	0.400	"	45.2	7.27	63.2	75-125	2.33	25	QM-07
Silver	2.26	0.0200	"	2.26	0.0199	99.0	75-125	0.220	25	
Zinc	54.1	0.400	"	45.2	23.3	68.1	75-125	2.30	25	QM-07
Selenium	3.18	0.260	"	4.52	ND	70.4	75-125	1.79	25	QM-07

**Batch BHB0663 - EPA 3050B**

Blank (BHB0663-BLK1)		Prepared: 02/21/24 Analyzed: 02/22/24								
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	"							

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHB0663 - EPA 3050B**

**LCS (BHB0663-BS1)**

Prepared: 02/21/24 Analyzed: 02/22/24

Arsenic	36.0	0.200	mg/kg wet	40.0		90.0	80-120			
Barium	39.8	0.400	"	40.0		99.5	80-120			
Cadmium	2.10	0.200	"	2.00		105	80-120			
Copper	45.3	0.400	"	40.0		113	80-120			
Lead	20.8	0.200	"	20.0		104	80-120			
Nickel	43.7	0.400	"	40.0		109	80-120			
Silver	2.07	0.0200	"	2.00		103	80-120			
Zinc	44.7	0.400	"	40.0		112	80-120			
Selenium	4.08	0.260	"	4.00		102	80-120			

**Duplicate (BHB0663-DUP1)**

Source: 2401486-02RE1

Prepared: 02/21/24 Analyzed: 02/22/24

Arsenic	3.57	0.200	mg/kg dry		3.56			0.219	20	
Barium	113	0.400	"		110			2.56	20	
Cadmium	0.410	0.200	"		0.389			5.26	20	
Copper	6.80	0.400	"		7.57			10.8	20	
Lead	20.3	0.200	"		15.7			25.9	20	QR-04
Nickel	4.86	0.400	"		5.36			9.97	20	
Silver	0.0323	0.0200	"		0.0420			26.3	20	QR-01
Zinc	20.5	0.400	"		22.6			9.43	20	
Selenium	ND	0.260	"		ND				20	

**Matrix Spike (BHB0663-MS1)**

Source: 2401486-02RE1

Prepared: 02/21/24 Analyzed: 02/22/24

Arsenic	47.9	0.200	mg/kg dry	48.9	3.56	90.8	75-125			
Barium	160	0.400	"	48.9	110	104	75-125			
Cadmium	2.94	0.200	"	2.44	0.389	105	75-125			
Copper	45.8	0.400	"	48.9	7.57	78.3	75-125			
Lead	59.3	0.200	"	24.4	15.7	178	75-125			QM-07
Nickel	41.7	0.400	"	48.9	5.36	74.4	75-125			QM-07
Silver	2.58	0.0200	"	2.44	0.0420	104	75-125			
Zinc	57.1	0.400	"	48.9	22.6	70.7	75-125			QM-07
Selenium	4.62	0.260	"	4.89	ND	94.5	75-125			

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.*





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHB0663 - EPA 3050B**

Matrix Spike Dup (BHB0663-MSD1)		Source: 2401486-02RE1			Prepared: 02/21/24 Analyzed: 02/22/24						
Arsenic	46.5	0.200	mg/kg dry	48.9	3.56	87.9	75-125	2.94	25		
Barium	155	0.400	"	48.9	110	92.9	75-125	3.33	25		
Cadmium	2.88	0.200	"	2.44	0.389	102	75-125	2.35	25		
Copper	45.0	0.400	"	48.9	7.57	76.6	75-125	1.87	25		
Lead	57.4	0.200	"	24.4	15.7	171	75-125	3.14	25		QM-07
Nickel	41.0	0.400	"	48.9	5.36	72.8	75-125	1.87	25		QM-07
Silver	2.52	0.0200	"	2.44	0.0420	101	75-125	2.55	25		
Zinc	56.5	0.400	"	48.9	22.6	69.4	75-125	1.07	25		QM-07
Selenium	4.38	0.260	"	4.89	ND	89.6	75-125	5.41	25		

Summit Scientific

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



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

**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 BHA0987 - General Preparation**

**Blank (BHA0987-BLK1)**

Prepared: 01/29/24 Analyzed: 02/06/24

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

**LCS (BHA0987-BS1)**

Prepared: 01/29/24 Analyzed: 02/06/24

Calcium	6.47	0.0500	mg/L wet	5.00	129	70-130
Magnesium	6.20	0.0500	"	5.00	124	70-130
Sodium	6.38	0.0500	"	5.00	128	70-130

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.*



Fremont Environmental	Project: Noble - Benson 13-15	
PO Box 1289	Project Number: UWRWE-A2591-ABN	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	03/05/24 10:22

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 BHA1081 - General Preparation

Duplicate (BHA1081-DUP1)	Source: 2401156-04	Prepared & Analyzed: 01/31/24
% Solids	93.7	% 93.4 0.367 20

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.



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

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

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

**Batch BHA1038 - General Preparation**

**Blank (BHA1038-BLK1)**

Prepared & Analyzed: 01/30/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHA1038-BS1)**

Prepared & Analyzed: 01/30/24

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 104 95-105

**Duplicate (BHA1038-DUP1)**

**Source: 2401486-01**

Prepared & Analyzed: 01/30/24

Specific Conductance (EC) 0.118 0.0100 mmhos/cm 0.118 0.763 20

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15  
Project Number: UWRWE-A2591-ABN  
Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

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

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

**Batch BHA1037 - General Preparation**

**LCS (BHA1037-BS1)**

Prepared & Analyzed: 01/30/24

pH	9.11		pH Units	9.18	99.2	95-105
----	------	--	----------	------	------	--------

**Duplicate (BHA1037-DUP1)**

**Source: 2401486-01**

Prepared & Analyzed: 01/30/24

pH	8.70		pH Units	8.89	2.16	20
----	------	--	----------	------	------	----

**Batch BHB0799 - General Preparation**

**LCS (BHB0799-BS1)**

Prepared & Analyzed: 02/26/24

pH	9.13		pH Units	9.18	99.5	95-105
----	------	--	----------	------	------	--------

**Duplicate (BHB0799-DUP1)**

**Source: 2401305-03RE1**

Prepared & Analyzed: 02/26/24

pH	8.70		pH Units	8.88	2.05	20
----	------	--	----------	------	------	----

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.*



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Benson 13-15

Project Number: UWRWE-A2591-ABN

Project Manager: Paul Henchan

**Reported:**  
03/05/24 10:22

### Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
I-04	Sample was analyzed out of recommended holding time per clients request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference