

# **FREMONT ENVIRONMENTAL INC.**

August 2, 2023

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

Subject:           **Flowline Closure Data Submittal**  
                  HSR Cutler 14-31 Flowline  
                  API # 05-123-15168  
                  SESW Sec. 31, T4N, R65W  
                  Weld County, Colorado  
                  Fremont Project No. C023-112  
                  Remediation # 27651

Dear Mr. Peterson:

As requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline abandonment activities at the Noble Energy Inc. (Noble) HSR Cutler 14-31 Flowline. Details of the flowline abandonment activities are documented in the attached Closure Report. Groundwater was not encountered during decommissioning activities.

Please contact me at (970) 213-7488 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

**FREMONT ENVIRONMENTAL INC.**



Chris Lattes  
Consultant

Attachments:

- Figures
- Tables
- Flowline Closure Checklist
- Photos
- Laboratory Reports

## 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>

*Starting point: (GPS coordinates and descriptions)*

*End point: (GPS coordinates and descriptions)*

*USCS Soil Type:* \_\_\_\_\_ *Estimated Depth to Groundwater:* \_\_\_\_\_

*Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)*

*Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)*

### Flowlines

<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?</i>								
<i>Location/Sample ID#</i>								
<i>Photo Number(s)</i>								

*Other observations regarding on location flowlines:*

### Summary

*Was impacted soil identified?*  
 No                      Yes - less than 10 cubic yards                      Yes - more than 10 cubic yards

*Total number of samples field screened:* \_\_\_\_\_ *Total number of samples collected:* \_\_\_\_\_

*Highest PID Reading:* \_\_\_\_\_ *Total number of samples submitted to lab for analysis:* \_\_\_\_\_

*If more than 10 cubic yards of impacted soil were observed:*

*Vertical extent:* \_\_\_\_\_ *Estimated spill volume:* \_\_\_\_\_

*Lateral extent:* \_\_\_\_\_ *Volume of soil removed:* \_\_\_\_\_

*Is additional investigation required?*

*Was groundwater encountered during the investigation?*  
 No                      Yes - not impacted or in contact with impacted soils                      Yes - groundwater impacted and/or in contact with impacted soils

*Measured depth to groundwater:* \_\_\_\_\_ *Was remedial groundwater removal conducted?* Yes      No

*Date Groundwater was encountered:* \_\_\_\_\_ *Commencement date of removal:* \_\_\_\_\_

*Sheen on groundwater?*                      Yes                      No                      *Volume of groundwater removed prior to sampling:* \_\_\_\_\_

*Free product observed?*                      Yes                      No                      *Volume of groundwater removed post sampling:* \_\_\_\_\_

*Total number of samples collected:* \_\_\_\_\_ *Total Volume of groundwater removed:* \_\_\_\_\_

*Total number of samples submitted to lab for analysis:* \_\_\_\_\_

TABLE 1  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE ENERGY, INC.  
HSR CUTLER 31-15G, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C023-112

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)
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500		
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500		
SEP02@4'	04/24/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the COGCC Table 915-1 concentrations

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

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

TABLE 2  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE ENERGY, INC.  
HSR CUTLER 31-15G, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C023-112

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)
COGCC 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
COGCC 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
SEP02@4'	04/24/2023	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

Bold faced values exceed the COGCC Table 915-1 concentrations

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

**TABLE 3**  
**SUMMARY OF SOIL SUITABILITY FOR RECLAMATION**  
**NOBLE ENERGY, INC.**  
**HSR CUTLER 31-15G, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C023-112**

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
COGCC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
SEP02@4'	04/24/2023	4'	7.07	0.204	0.139	<i>&lt;0.0100</i>

Bold faced values exceed the COGCC Table 915-1 concentrations

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

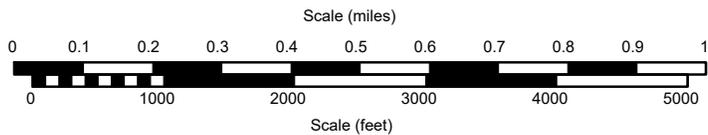
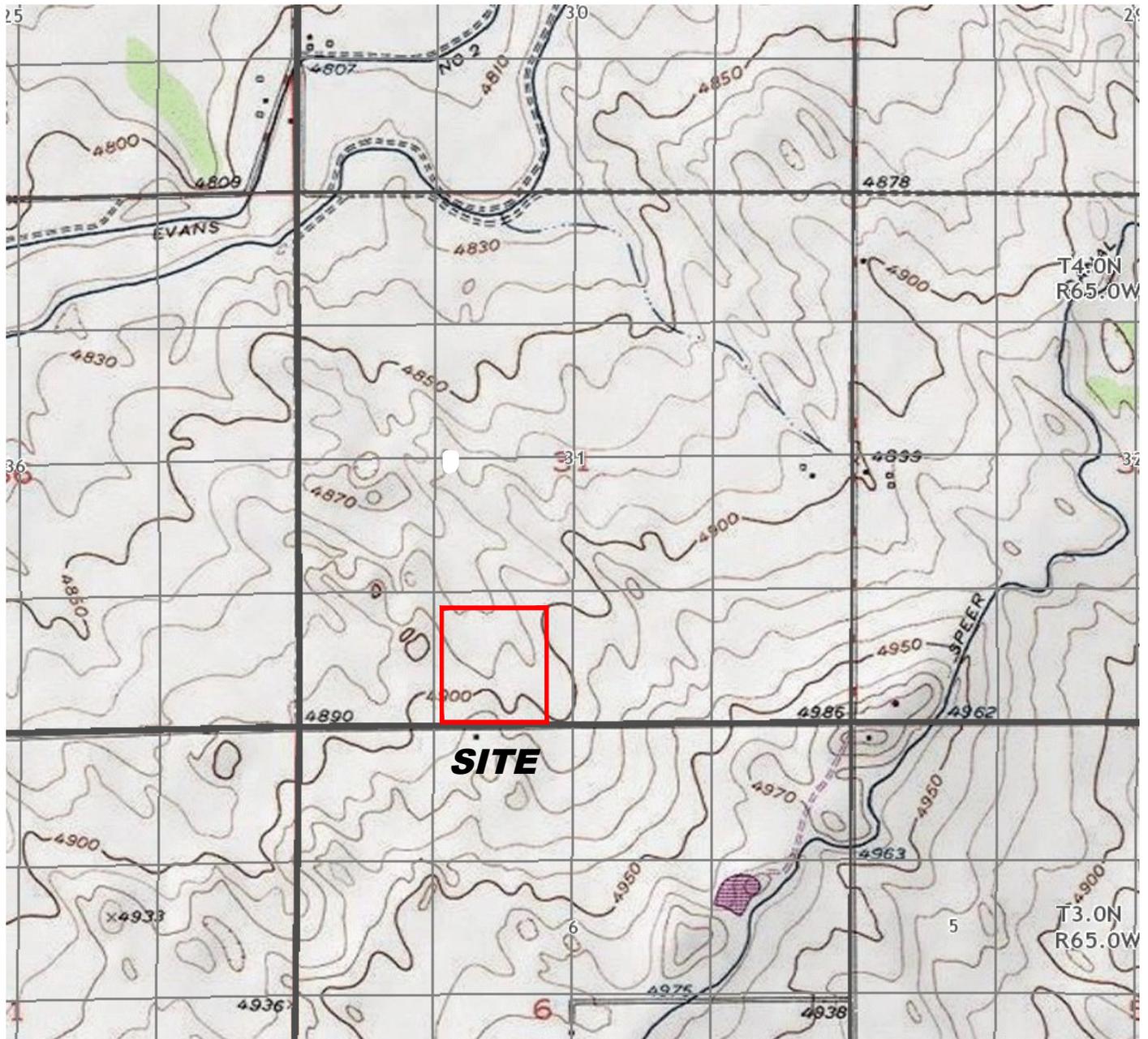
**TABLE 4**  
**SUMMARY OF POTHOLE FIELD OBSERVATIONS**  
**NOBLE ENERGY INC.**  
**HSR CUTLER 14-31, WELD COUNTY, COLORADO**  
**FREMONT PROJECT C023-112**

<b>Location</b>	<b>Latitude</b>	<b>Longitude</b>	<b>PID Reading</b>	<b>Field Observations</b>
SEPO2@4'	40.265392	-104.710479	1	No suspected impacts.
FL01@6'	40.265279	-104.710356	0.5	No suspected impacts.
WH (Sampled by others)	40.263485	-104.70859	-	Sampled by others.

**TABLE 5**  
**SUMMARY OF FLOW LINE CONDITION**  
**NOBLE ENERGY INC.**  
**HSR CUTLER 14-31, WELD COUNTY, COLORADO**  
**FREMONT PROJECT C023-112**

START	STOP	FOOTAGE	PIPE TYPE AND CONDITION
SEP02@4'	FL01@6'	54	2" steel, good condition. Removed flowline.
FL01@6'	WH (Sampled by others)	824	2" steel, good condition. AIP flowline.

878      Total linear feet of flow line



**Figure 1**  
 Site Location Map  
 HSR Cutler 14-31  
 SESW S31 T4N R65W  
 Weld County, Colorado

USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Drawn By: HM  
 Date: 09/13/2023





**Legend**

▲ PID READING LOCATION      - - - - - FORMER FLOWLINE

● WELL HEAD LOCATION



Figure 2  
Site Map

**Noble Energy, Inc. – HSR Cutler 14-31**  
 SESW, Sec. 31, T4N, R65W, 6th PM  
 Weld County, Colorado  
 40.265392°, -104.71047°



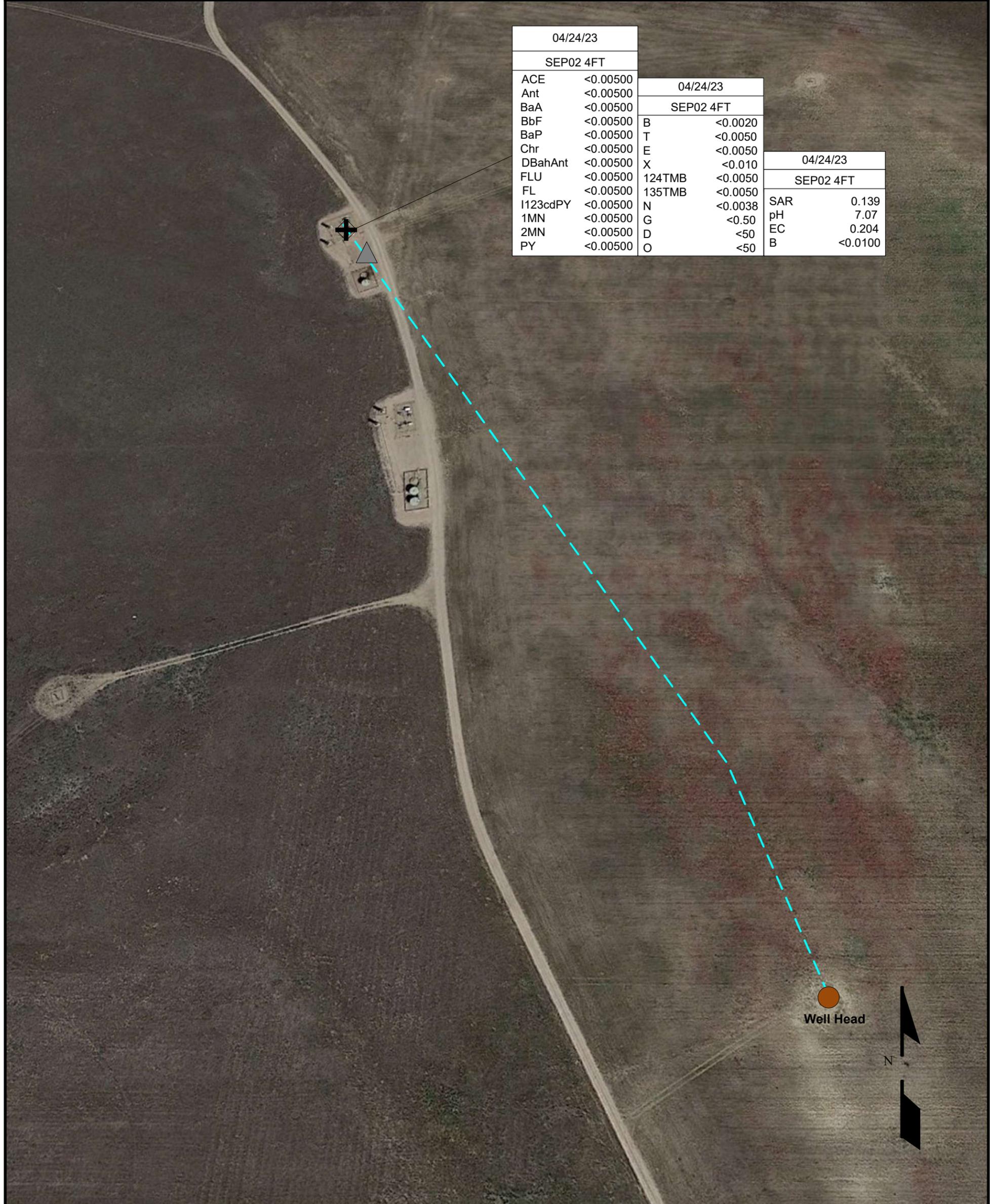
Date: 09/13/2023

Remediation #: 27651

API #: 05-123-15168

Project No. CO023-112

Filename :



04/24/23	
SEP02 4FT	
ACE	<0.00500
Ant	<0.00500
BaA	<0.00500
BbF	<0.00500
BaP	<0.00500
Chr	<0.00500
DBahAnt	<0.00500
FLU	<0.00500
FL	<0.00500
I123cdPY	<0.00500
1MN	<0.00500
2MN	<0.00500
PY	<0.00500

04/24/23	
SEP02 4FT	
B	<0.0020
T	<0.0050
E	<0.0050
X	<0.010
124TMB	<0.0050
135TMB	<0.0050
N	<0.0038
G	<0.50
D	<50
O	<50

04/24/23	
SEP02 4FT	
SAR	0.139
pH	7.07
EC	0.204
B	<0.0100

**Legend**

- PID READING LOCATION
- FORMER FLOWLINE
- SOIL SAMPLE LOCATION
- WELL HEAD LOCATION

04/24/23		DATE SAMPLED
SEP02 4FT		SAMPLE ID and DEPTH (ft)
ACE	<0.00500	ACENAPHTHENE (mg/kg)
Ant	<0.00500	ANTHRACENE (mg/kg)
BaA	<0.00500	BENZO(A)ANTHRACENE (mg/kg)
BbF	<0.00500	BENZO(B)FLUORANTHENE (mg/kg)
BaP	<0.00500	BENZO(K)FLUORANTHENE (mg/kg)
Chr	<0.00500	CHRYSENE (mg/kg)
DBahAnt	<0.00500	DIBENZ(A,H)ANTHRACENE (mg/kg)
FLU	<0.00500	FLUORANTHENE (mg/kg)
FL	<0.00500	FLUORENE (mg/kg)
I123cdPY	<0.00500	INDENO(1,2,3-CD)PYRENE (mg/kg)
1MN	<0.00500	1-METHYLNAPHTHALENE (mg/kg)
2MN	<0.00500	2-METHYLNAPHTHALENE (mg/kg)
PY	<0.00500	PYRENE (mg/kg)

04/24/23		DATE SAMPLED
SEP02 4FT		SAMPLE ID and DEPTH (ft)
SAR	2.22	SAR (units)
pH	8.08	pH (units)
EC	0.489	EC (mmhos/cm)
B	0.0514	BORON (mg/L)

04/24/23		DATE SAMPLED
SEP02 4FT		SAMPLE ID and DEPTH (ft)
B	<0.0020	BENZENE (mg/kg)
T	<0.0050	TOLUENE (mg/kg)
E	<0.0050	ETHYLBENZENE (mg/kg)
X	<0.010	TOTAL XYLENES (mg/kg)
124TMB	<0.0050	1,2,4-TRIMETHYLBENZENE
135TMB	<0.0050	1,3,5-TRIMETHYLBENZENE
N	<0.0038	NAPHTHALENE (mg/kg)
G	<0.50	TPH-GRO (mg/kg)
D	<50	TPH-DRO (mg/kg)
O	<50	TPH-ORO (mg/kg)

Figure 3  
SOIL CHEMISTRY MAP

**Noble Energy, Inc. – HSR Cutler 14-31**  
 SESW, Sec. 31, T4N, R65W, 6th PM  
 Weld County, Colorado  
 40.265392°, -104.71047°



Date:	09/13/2023
Remediation #:	27651
API #:	05-123-15168
Project No.:	CO023-112
Filename:	

# Photo Log



DIRECTION  
SE (T)

40.26540°N  
104.71044°W

ACCURACY 4 m  
DATUM WGS84



HSR Cutler 14-31, HSR  
Sells 13-31 & UPRC 3...

Facility SEP01 & UPRC  
FL PNA

2023-04-24  
11:26:23-06:00

### Description:

SEP01@5', UPRC 31-15G FL AIP

# Photo Log

DIRECTION  
SE (T)

40.26543°N  
104.71053°W

ACCURACY 4 m  
DATUM WGS84



Taken With  
**Context Camera**

HSR Cutler 14-31, HSR  
Sells 13-31 & UPRC 3...

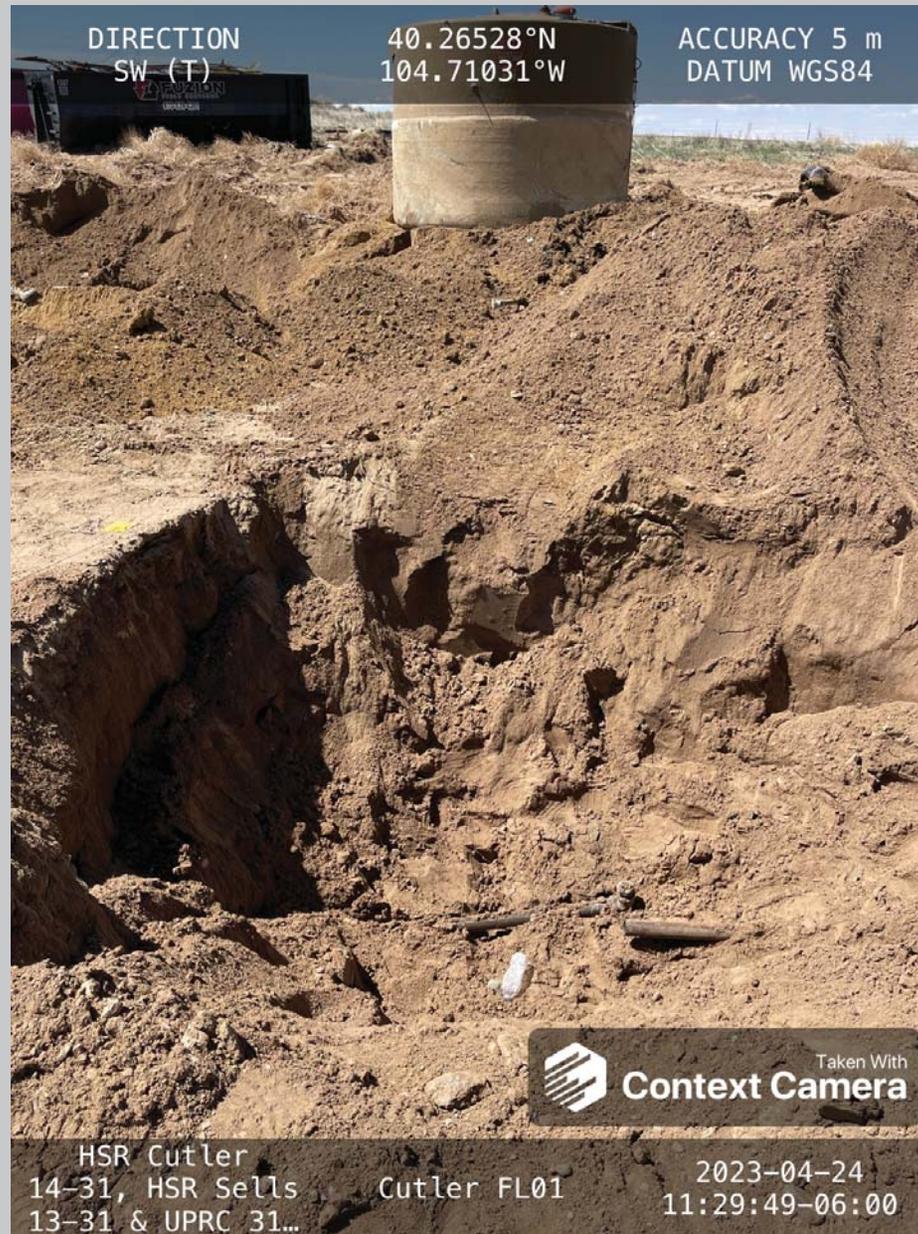
Facility SEP02

2023-04-24  
12:59:35-06:00

### Description:

SEP02@4'

# Photo Log



### Description:

HSR Cutler 14-31 AIP and FL01@6'

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

May 16, 2023

Paul Henehan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: HSR - Sells-64N6SW 31SWSW

Work Order # 2304593

Enclosed are the results of analyses for samples received by Summit Scientific on 04/26/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury

President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL04@5'	2304593-01	Soil	04/21/23 00:00	04/26/23 16:30
AST01@6"	2304593-02	Soil	04/21/23 00:00	04/26/23 16:30
AST02@6"	2304593-03	Soil	04/21/23 00:00	04/26/23 16:30
SEP02@4'	2304593-04	Soil	04/24/23 00:00	04/26/23 16:30
PWVN01@4'	2304593-05	Soil	04/24/23 00:00	04/26/23 16:30
PWVB01@5.5'	2304593-06	Soil	04/24/23 00:00	04/26/23 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.*

2304593

# Summit Scientific

S<sub>2</sub>

4653 Table Mountain Drive ♦ Golden, Colorado 80403  
303-277-9310 ♦ 303-374-5933 (f)

Page ( of )

Client: Fremont Environmental

Project Manager: Paul Henehan

Address:

E-Mail: Fremont Distribution List: PaulH, EthanB, JeffG and ChrisL. @fremontenv.com

City/State/Zip:

Bill to Noble

Phone:

Project Name: HSR-SELLS-64N65W 31SW5W

Sampler Name: Chris Lattes

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	TPH, BTEX, TMS, Naph	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD			
1	FL04 @ 5'	4/21/23		2			X			X				X	X	X					
2	AST01 @ 6'	4/21/23		2			X			X				X	X	X					
3	AST02 @ 6'	4/21/23		2			X			X				X	X	X					
4	SEP02 @ 4'	4/24/23		2			X			X				X	X	X					
5	PWV01 @ 4'	↓		2			X			X				X	X	X					
6	PWV01 @ 5.5'	4/24/23		2			X			X				X	X	X					
7																					
8																					
9																					
10																					

Relinquished by: Chris Lattes	Date/Time: 4/26/23 13:15	Received by: [Signature]	Date/Time: 4/26/23 13:15	Turn Around Time (Check):	72 hours <input type="checkbox"/>	Standard <input checked="" type="checkbox"/>	Notes: Facility + FL HSR Sells 13-31 HSR Outlow 14-31 VPRC 31-156
Relinquished by: [Signature]	Date/Time: 4/20/23 1630	Received by: [Signature]	Date/Time: 4/20/23 1630	Sample Integrity:	Temperature Upon Receipt: 9.2	Samples Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:				

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2304593

Client: Fremont Client Project ID: HSR-Sells-64N 69W 315WSW

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

-

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

Temp (°C)  Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <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"/>	<u>NOTE</u>
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 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.

AS  
Custodian Printed Name

4/26/23  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
05/16/23 10:49

**FL04@5'**  
**2304593-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0033	05/01/23	05/02/23	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: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0034	"	05/02/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		92.2 %		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**FL04@5'**  
**2304593-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0953	04/28/23	05/03/23	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: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		56.1 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		64.2 %		40-150		"	"	"	"	"

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0143</b>	0.0100		mg/L	1	BGE0042	05/02/23	05/03/23	EPA 6020B	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**FL04@5'**  
**2304593-01 (Soil)**

**Summit Scientific**

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.8	0.0536		mg/L dry	1	BGE0081	05/02/23	05/03/23	EPA 6020B	
Magnesium	5.46	0.0536		"	"	"	"	"	"	
Sodium	8.11	0.0536		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.368	0.00100		units	1	BGE0145	05/04/23	05/04/23	Calculation	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3			%	1	BGE0014	05/01/23	05/01/23	Calculation	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.308	0.0100		mmhos/cm	1	BGE0106	05/03/23	05/03/23	EPA 120.1	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.48			pH Units	1	BGE0107	05/03/23	05/03/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**AST01@6''  
2304593-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0033	05/01/23	05/02/23	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: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0034	"	05/02/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		95.9 %		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**AST01@6''  
2304593-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0953	04/28/23	05/03/23	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: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		68.6 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		65.5 %		40-150		"	"	"	"	"

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0654</b>	0.0100		mg/L	1	BGE0042	05/02/23	05/03/23	EPA 6020B	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**AST01@6''  
 2304593-02 (Soil)**

**Summit Scientific**

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	528	0.0524		mg/L dry	1	BGE0081	05/02/23	05/03/23	EPA 6020B	
Magnesium	59.8	0.0524		"	"	"	"	"	"	
Sodium	17.8	0.0524		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.196	0.00100		units	1	BGE0145	05/04/23	05/04/23	Calculation	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.3			%	1	BGE0014	05/01/23	05/01/23	Calculation	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.372	0.0100		mmhos/cm	1	BGE0106	05/03/23	05/03/23	EPA 120.1	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.69			pH Units	1	BGE0107	05/03/23	05/03/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**AST02@6''  
2304593-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0033	05/01/23	05/02/23	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: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0034	"	05/02/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		86.0 %		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**AST02@6''**  
**2304593-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0953	04/28/23	05/03/23	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: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		45.6 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		48.0 %		40-150		"	"	"	"	"

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0181</b>	0.0100		mg/L	1	BGE0042	05/02/23	05/03/23	EPA 6020B	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**AST02@6''  
 2304593-03 (Soil)**

**Summit Scientific**

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	70.4	0.0551		mg/L dry	1	BGE0081	05/02/23	05/03/23	EPA 6020B	
Magnesium	15.0	0.0551		"	"	"	"	"	"	
Sodium	1.51	0.0551		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0426	0.00100		units	1	BGE0145	05/04/23	05/04/23	Calculation	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.8			%	1	BGE0070	05/02/23	05/02/23	Calculation	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.30	0.0100		mmhos/cm	1	BGE0106	05/03/23	05/03/23	EPA 120.1	

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

Date Sampled: **04/21/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.92			pH Units	1	BGE0107	05/03/23	05/03/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**SEP02@4'**  
**2304593-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0033	05/01/23	05/02/23	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: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		97.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0034	"	05/02/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		88.8 %		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**SEP02@4'**  
**2304593-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0953	04/28/23	05/03/23	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: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		62.7 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		57.2 %		40-150		"	"	"	"	"

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100		mg/L	1	BGE0042	05/02/23	05/03/23	EPA 6020B	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**SEP02@4'**  
**2304593-04 (Soil)**

**Summit Scientific**

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	67.5	0.0555		mg/L dry	1	BGE0081	05/02/23	05/03/23	EPA 6020B	
Magnesium	12.2	0.0555		"	"	"	"	"	"	
Sodium	4.71	0.0555		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.139	0.00100		units	1	BGE0145	05/04/23	05/04/23	Calculation	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.2			%	1	BGE0070	05/02/23	05/02/23	Calculation	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.204	0.0100		mmhos/cm	1	BGE0106	05/03/23	05/03/23	EPA 120.1	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.07			pH Units	1	BGE0107	05/03/23	05/03/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**PWVN01@4'**  
**2304593-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0033	05/01/23	05/02/23	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: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		100 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0034	"	05/02/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		83.6 %		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**PWVN01@4'**  
**2304593-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0953	04/28/23	05/03/23	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: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		42.5 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		50.8 %		40-150		"	"	"	"	"

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0122</b>	0.0100		mg/L	1	BGE0042	05/02/23	05/03/23	EPA 6020B	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**PWVN01@4'**  
**2304593-05 (Soil)**

**Summit Scientific**

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	62.8	0.0568		mg/L dry	1	BGE0081	05/02/23	05/03/23	EPA 6020B	
Magnesium	6.25	0.0568		"	"	"	"	"	"	
Sodium	1.15	0.0568		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0370	0.00100		units	1	BGE0145	05/04/23	05/04/23	Calculation	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.0			%	1	BGE0070	05/02/23	05/02/23	Calculation	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.219	0.0100		mmhos/cm	1	BGE0106	05/03/23	05/03/23	EPA 120.1	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.44			pH Units	1	BGE0107	05/03/23	05/03/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**PWVB01@5.5'**  
**2304593-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0033	05/01/23	05/02/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.015</b>	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.0091</b>	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		96.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0034	"	05/02/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		86.0 %		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**PWVB01@5.5'**  
**2304593-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0953	04/28/23	05/03/23	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		"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.00706</b>	0.00500		"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0120</b>	0.00500		"	"	"	"	"	"	

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		75.2 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		49.9 %		40-150		"	"	"	"	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0246</b>	0.0100		mg/L	1	BGE0042	05/02/23	05/03/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting Limit	MDL	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

**PWVB01@5.5'**  
**2304593-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.477	0.233		mg/kg dry	1	BGE0448	05/12/23	05/14/23	EPA 6020B	
Barium	24.9	0.466		"	"	"	"	"	"	
Cadmium	ND	0.233		"	"	"	"	"	"	
Copper	1.79	0.466		"	"	"	"	"	"	
Lead	3.71	0.233		"	"	"	"	"	"	
Nickel	1.34	0.466		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0233		"	"	"	"	"	"	
Zinc	6.88	0.466		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 04/24/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGE0396	05/11/23	05/12/23	EPA 7196A	

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

Date Sampled: 04/24/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	44.4	0.0583		mg/L dry	1	BGE0081	05/02/23	05/03/23	EPA 6020B	
Magnesium	5.56	0.0583		"	"	"	"	"	"	
Sodium	2.78	0.0583		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 04/24/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.105	0.00100		units	1	BGE0145	05/04/23	05/04/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**PWVB01@5.5'**  
**2304593-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	85.8			%	1	BGE0070	05/02/23	05/02/23	Calculation	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.442	0.0100		mmhos/cm	1	BGE0106	05/03/23	05/03/23	EPA 120.1	

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

Date Sampled: **04/24/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.98			pH Units	1	BGE0107	05/03/23	05/03/23	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

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

#### Summit Scientific

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

#### Batch BGE0033 - EPA 5030 Soil MS

##### Blank (BGE0033-BLK1)

Prepared & Analyzed: 05/01/23

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	0.0406		"	0.0400		102		50-150			
Surrogate: Toluene-d8	0.0408		"	0.0400		102		50-150			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103		50-150			

##### LCS (BGE0033-BS1)

Prepared & Analyzed: 05/01/23

Benzene	0.0839	0.0020	mg/kg	0.100		83.9		70-130			
Toluene	0.0912	0.0050	"	0.100		91.2		70-130			
Ethylbenzene	0.110	0.0050	"	0.100		110		70-130			
m,p-Xylene	0.218	0.010	"	0.200		109		70-130			
o-Xylene	0.101	0.0050	"	0.100		101		70-130			
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100		111		70-130			
1,3,5-Trimethylbenzene	0.114	0.0050	"	0.100		114		70-130			
Naphthalene	0.0938	0.0038	"	0.100		93.8		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0364		"	0.0400		91.0		50-150			
Surrogate: Toluene-d8	0.0396		"	0.0400		99.1		50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102		50-150			

##### Matrix Spike (BGE0033-MS1)

Source: 2304589-01

Prepared & Analyzed: 05/01/23

Benzene	0.0814	0.0020	mg/kg	0.100	ND	81.4		70-130			
Toluene	0.0903	0.0050	"	0.100	ND	90.3		70-130			
Ethylbenzene	0.109	0.0050	"	0.100	ND	109		70-130			
m,p-Xylene	0.216	0.010	"	0.200	ND	108		70-130			
o-Xylene	0.101	0.0050	"	0.100	ND	101		70-130			
1,2,4-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113		70-130			
1,3,5-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113		70-130			
Naphthalene	0.0950	0.0038	"	0.100	ND	95.0		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0400		94.0		50-150			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8		50-150			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGE0033 - EPA 5030 Soil MS**

Matrix Spike Dup (BGE0033-MSD1)	Source: 2304589-01			Prepared & Analyzed: 05/01/23						
Benzene	0.0843	0.0020	mg/kg	0.100	ND	84.3	70-130	3.59	30	
Toluene	0.0947	0.0050	"	0.100	ND	94.7	70-130	4.80	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	0.467	30	
m,p-Xylene	0.218	0.010	"	0.200	ND	109	70-130	0.914	30	
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130	0.973	30	
1,2,4-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	0.213	30	
1,3,5-Trimethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130	1.77	30	
Naphthalene	0.104	0.0038	"	0.100	ND	104	70-130	9.36	30	
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.1	50-150			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**

**Summit Scientific**

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

**Batch BGE0034 - EPA 3550A**

**Blank (BGE0034-BLK1)**

Prepared & Analyzed: 05/01/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.4		"	12.5		83.5		30-150			

**LCS (BGE0034-BS1)**

Prepared & Analyzed: 05/01/23

C10-C28 (DRO)	564	50	mg/kg	500		113		70-130			
Surrogate: <i>o</i> -Terphenyl	10.4		"	12.5		83.6		30-150			

**Matrix Spike (BGE0034-MS1)**

Source: 2304589-01

Prepared & Analyzed: 05/01/23

C10-C28 (DRO)	550	50	mg/kg	500	15.1	107		70-130			
Surrogate: <i>o</i> -Terphenyl	10.5		"	12.5		84.4		30-150			

**Matrix Spike Dup (BGE0034-MSD1)**

Source: 2304589-01

Prepared & Analyzed: 05/01/23

C10-C28 (DRO)	544	50	mg/kg	500	15.1	106		70-130	1.18	20	
Surrogate: <i>o</i> -Terphenyl	10.5		"	12.5		84.0		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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGD0953 - EPA 5030 Soil MS**

**Blank (BGD0953-BLK1)**

Prepared: 04/28/23 Analyzed: 05/02/23

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	0.0310		"	0.0333		92.9	40-150			
Surrogate: Fluoranthene-d10	0.0316		"	0.0333		94.7	40-150			

**LCS (BGD0953-BS1)**

Prepared: 04/28/23 Analyzed: 05/02/23

Acenaphthene	0.0264	0.00500	mg/kg	0.0333		79.1	31-137			
Anthracene	0.0263	0.00500	"	0.0333		78.8	30-120			
Benzo (a) anthracene	0.0287	0.00500	"	0.0333		86.1	30-120			
Benzo (a) pyrene	0.0264	0.00500	"	0.0333		79.3	30-120			
Benzo (b) fluoranthene	0.0261	0.00500	"	0.0333		78.2	30-120			
Benzo (k) fluoranthene	0.0290	0.00500	"	0.0333		87.0	30-120			
Chrysene	0.0307	0.00500	"	0.0333		92.0	30-120			
Dibenz (a,h) anthracene	0.0252	0.00500	"	0.0333		75.7	30-120			
Fluoranthene	0.0265	0.00500	"	0.0333		79.4	30-120			
Fluorene	0.0257	0.00500	"	0.0333		77.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0282	0.00500	"	0.0333		84.7	30-120			
Pyrene	0.0305	0.00500	"	0.0333		91.6	35-142			
1-Methylnaphthalene	0.0224	0.00500	"	0.0333		67.2	35-142			
2-Methylnaphthalene	0.0259	0.00500	"	0.0333		77.8	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0229		"	0.0333		68.6	40-150			
Surrogate: Fluoranthene-d10	0.0275		"	0.0333		82.5	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

Reported:  
05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGD0953 - EPA 5030 Soil MS**

<b>Matrix Spike (BGD0953-MS1)</b>	<b>Source: 2304553-01</b>			<b>Prepared: 04/28/23 Analyzed: 05/02/23</b>						
Acenaphthene	0.0169	0.00500	mg/kg	0.0333	ND	50.7	31-137			
Anthracene	0.0149	0.00500	"	0.0333	ND	44.8	30-120			
Benzo (a) anthracene	0.0187	0.00500	"	0.0333	ND	56.0	30-120			
Benzo (a) pyrene	0.0172	0.00500	"	0.0333	ND	51.6	30-120			
Benzo (b) fluoranthene	0.0177	0.00500	"	0.0333	ND	53.2	30-120			
Benzo (k) fluoranthene	0.0189	0.00500	"	0.0333	ND	56.7	30-120			
Chrysene	0.0201	0.00500	"	0.0333	ND	60.2	30-120			
Dibenz (a,h) anthracene	0.0173	0.00500	"	0.0333	ND	51.8	30-120			
Fluoranthene	0.0168	0.00500	"	0.0333	ND	50.3	30-120			
Fluorene	0.0156	0.00500	"	0.0333	ND	46.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0197	0.00500	"	0.0333	ND	59.2	30-120			
Pyrene	0.0206	0.00500	"	0.0333	ND	61.9	35-142			
1-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.8	15-130			
2-Methylnaphthalene	0.0140	0.00500	"	0.0333	ND	42.0	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0137		"	0.0333		41.2	40-150			
Surrogate: Fluoranthene-d10	0.0169		"	0.0333		50.6	40-150			

<b>Matrix Spike Dup (BGD0953-MSD1)</b>	<b>Source: 2304553-01</b>			<b>Prepared: 04/28/23 Analyzed: 05/02/23</b>						
Acenaphthene	0.0158	0.00500	mg/kg	0.0333	ND	47.5	31-137	6.56	30	
Anthracene	0.0171	0.00500	"	0.0333	ND	51.3	30-120	13.6	30	
Benzo (a) anthracene	0.0194	0.00500	"	0.0333	ND	58.2	30-120	3.92	30	
Benzo (a) pyrene	0.0173	0.00500	"	0.0333	ND	51.9	30-120	0.566	30	
Benzo (b) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.6	30-120	3.12	30	
Benzo (k) fluoranthene	0.0209	0.00500	"	0.0333	ND	62.8	30-120	10.2	30	
Chrysene	0.0209	0.00500	"	0.0333	ND	62.7	30-120	3.98	30	
Dibenz (a,h) anthracene	0.0157	0.00500	"	0.0333	ND	47.0	30-120	9.82	30	
Fluoranthene	0.0166	0.00500	"	0.0333	ND	49.9	30-120	0.865	30	
Fluorene	0.0146	0.00500	"	0.0333	ND	43.9	30-120	6.10	30	
Indeno (1,2,3-cd) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	11.0	30	
Pyrene	0.0228	0.00500	"	0.0333	ND	68.3	35-142	9.79	30	
1-Methylnaphthalene	0.0156	0.00500	"	0.0333	ND	46.8	15-130	6.52	50	
2-Methylnaphthalene	0.0144	0.00500	"	0.0333	ND	43.3	15-130	3.09	50	
Surrogate: 2-Methylnaphthalene-d10	0.0141		"	0.0333		42.2	40-150			
Surrogate: Fluoranthene-d10	0.0149		"	0.0333		44.8	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

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

**Batch BGE0042 - EPA 3050B**

**Blank (BGE0042-BLK1)**

Prepared: 05/02/23 Analyzed: 05/03/23

Boron ND 0.0100 mg/L

**LCS (BGE0042-BS1)**

Prepared: 05/02/23 Analyzed: 05/03/23

Boron 5.94 0.0100 mg/L 5.00 119 80-120

**Duplicate (BGE0042-DUP1)**

**Source: 2304593-01**

Prepared: 05/02/23 Analyzed: 05/03/23

Boron 0.0522 0.0100 mg/L 0.0143 114 20 QR-03

**Matrix Spike (BGE0042-MS1)**

**Source: 2304593-01**

Prepared: 05/02/23 Analyzed: 05/03/23

Boron 3.35 0.0100 mg/L 5.00 0.0143 66.6 75-125 QM-05

**Matrix Spike Dup (BGE0042-MSD1)**

**Source: 2304593-01**

Prepared: 05/02/23 Analyzed: 05/03/23

Boron 3.13 0.0100 mg/L 5.00 0.0143 62.3 75-125 6.64 25 QM-05

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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

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

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

**Batch BGE0448 - EPA 3050B**

**Blank (BGE0448-BLK1)**

Prepared: 05/12/23 Analyzed: 05/14/23

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 (BGE0448-BS1)**

Prepared: 05/12/23 Analyzed: 05/14/23

Arsenic	35.2	0.200	mg/kg wet	40.0	88.0	80-120
Barium	39.3	0.400	"	40.0	98.2	80-120
Cadmium	1.69	0.200	"	2.00	84.6	80-120
Copper	37.2	0.400	"	40.0	93.1	80-120
Lead	21.4	0.200	"	20.0	107	80-120
Nickel	36.6	0.400	"	40.0	91.6	80-120
Selenium	3.84	0.260	"	4.00	96.0	80-120
Silver	1.79	0.0200	"	2.00	89.4	80-120
Zinc	36.0	0.400	"	40.0	89.9	80-120

**Duplicate (BGE0448-DUP1)**

Source: 2304593-06

Prepared: 05/12/23 Analyzed: 05/14/23

Arsenic	0.473	0.233	mg/kg dry	0.477	0.884	20
Barium	27.7	0.466	"	24.9	10.6	20
Cadmium	0.0518	0.233	"	0.0499	3.67	20
Copper	1.77	0.466	"	1.79	1.34	20
Lead	4.19	0.233	"	3.71	12.3	20
Nickel	1.27	0.466	"	1.34	5.58	20
Selenium	ND	0.260	"	ND		20
Silver	0.00466	0.0233	"	0.00700	40.0	20
Zinc	6.71	0.466	"	6.88	2.47	20

QM-01

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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

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

**Batch BGE0448 - EPA 3050B**

**Matrix Spike (BGE0448-MS1)**

Source: 2304593-06

Prepared: 05/12/23 Analyzed: 05/14/23

Arsenic	18.5	0.233	mg/kg dry	46.6	0.477	38.7	75-125				QM-07
Barium	51.5	0.466	"	46.6	24.9	57.1	75-125				QM-07
Cadmium	1.23	0.233	"	2.33	0.0499	50.7	75-125				QM-07
Copper	20.6	0.466	"	46.6	1.79	40.3	75-125				QM-07
Lead	17.3	0.233	"	23.3	3.71	58.3	75-125				QM-07
Nickel	20.2	0.466	"	46.6	1.34	40.4	75-125				QM-07
Selenium	3.97	0.260	"	4.66	ND	85.0	75-125				
Silver	1.38	0.0233	"	2.33	0.00700	58.8	75-125				QM-07
Zinc	25.2	0.466	"	46.6	6.88	39.3	75-125				QM-07

**Matrix Spike Dup (BGE0448-MSD1)**

Source: 2304593-06

Prepared: 05/12/23 Analyzed: 05/14/23

Arsenic	18.7	0.233	mg/kg dry	46.6	0.477	39.1	75-125	1.06	25		QM-07
Barium	53.7	0.466	"	46.6	24.9	61.8	75-125	4.14	25		QM-07
Cadmium	1.57	0.233	"	2.33	0.0499	65.2	75-125	24.2	25		QM-07
Copper	20.7	0.466	"	46.6	1.79	40.5	75-125	0.432	25		QM-07
Lead	17.2	0.233	"	23.3	3.71	58.0	75-125	0.400	25		QM-07
Nickel	20.2	0.466	"	46.6	1.34	40.5	75-125	0.0716	25		QM-07
Selenium	3.98	0.260	"	4.66	ND	85.4	75-125	0.387	25		
Silver	1.48	0.0233	"	2.33	0.00700	63.0	75-125	6.93	25		QM-07
Zinc	25.5	0.466	"	46.6	6.88	40.0	75-125	1.41	25		QM-07

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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BGE0396 - 3060A Mod**

**Blank (BGE0396-BLK1)**

Prepared: 05/11/23 Analyzed: 05/12/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGE0396-BS1)**

Prepared: 05/11/23 Analyzed: 05/12/23

Chromium, Hexavalent 23.4 0.30 mg/kg wet 25.0 93.6 80-120

**Duplicate (BGE0396-DUP1)**

**Source: 2305202-02**

Prepared: 05/11/23 Analyzed: 05/12/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGE0396-MS1)**

**Source: 2305202-02**

Prepared: 05/11/23 Analyzed: 05/12/23

Chromium, Hexavalent 24.3 0.30 mg/kg dry 26.2 ND 92.6 75-125

**Matrix Spike Dup (BGE0396-MSD1)**

**Source: 2305202-02**

Prepared: 05/11/23 Analyzed: 05/12/23

Chromium, Hexavalent 23.7 0.30 mg/kg dry 26.2 ND 90.4 75-125 2.40 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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGE0081 - General Preparation**

**Blank (BGE0081-BLK1)**

Prepared: 05/02/23 Analyzed: 05/03/23

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

**LCS (BGE0081-BS1)**

Prepared: 05/02/23 Analyzed: 05/03/23

Calcium	4.76	0.0500	mg/L wet	5.00	95.3	70-130				
Magnesium	4.26	0.0500	"	5.00	85.2	70-130				
Sodium	4.18	0.0500	"	5.00	83.5	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  
 PO Box 1289  
 Wellington CO, 80549

Project: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGE0014 - General Preparation**

<b>Duplicate (BGE0014-DUP1)</b>		<b>Source: 2304551-01</b>			<b>Prepared &amp; Analyzed: 05/01/23</b>			
% Solids	89.2		%		89.2		0.0467	20

**Batch BGE0070 - General Preparation**

<b>Duplicate (BGE0070-DUP1)</b>		<b>Source: 2304593-03</b>			<b>Prepared &amp; Analyzed: 05/02/23</b>			
% Solids	92.1		%		90.8		1.38	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGE0106 - General Preparation**

**Blank (BGE0106-BLK1)**

Prepared & Analyzed: 05/03/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGE0106-BS1)**

Prepared & Analyzed: 05/03/23

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 95-105

**Duplicate (BGE0106-DUP1)**

Source: 2304588-01

Prepared & Analyzed: 05/03/23

Specific Conductance (EC) 0.363 0.0100 mmhos/cm 0.363 0.0551 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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
 Project Manager: Paul Henehan

**Reported:**  
 05/16/23 10:49

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

**Summit Scientific**

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

**Batch BGE0107 - General Preparation**

**LCS (BGE0107-BS1)**

Prepared & Analyzed: 05/03/23

pH	9.02	pH Units	9.18	98.3	95-105
----	------	----------	------	------	--------

**Duplicate (BGE0107-DUP1)**

Source: 2304588-01

Prepared & Analyzed: 05/03/23

pH	7.51	pH Units	7.55	0.531	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: HSR - Sells-64N6SW 31SWSW

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
05/16/23 10:49

### 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.
- 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.
- 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.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- 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