

State 36-914 FL09
Proposed
Excavation Extent:
15'x15'x4' deep
(not to scale)

LEGEND

- WELL HEAD LOCATION
- SOIL BORING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT WALL
- FENCE LINE
- FLOW LINE

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)	DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-4 (4.0)	4/24/2023	9FL03 SB-5 (4.0)
ACE	<0.0000	ACE	<0.0000
Ant	<0.0000	Ant	<0.0000
BaA	<0.0000	BaA	<0.0000
BaF	<0.0000	BaF	<0.0000
BaP	<0.0000	BaP	<0.0000
Chr	<0.0000	Chr	<0.0000
DBaAnt	<0.0000	DBaAnt	<0.0000
FLU	<0.0000	FLU	<0.0000
1123cdPY	<0.0000	1123cdPY	<0.0000
1MN	<0.0000	1MN	<0.0000
2MN	<0.0000	2MN	<0.0000
PY	<0.0000	PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-6 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-7 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-8 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-9 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-10 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-11 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-12 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-13 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-14 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-15 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-16 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-17 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-18 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-19 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-20 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-21 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-22 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

DATE SAMPLED	SAMPLE ID AND DEPTH (ft)
4/24/2023	9FL03 SB-23 (4.0)
ACE	<0.0000
Ant	<0.0000
BaA	<0.0000
BaF	<0.0000
BaP	<0.0000
Chr	<0.0000
DBaAnt	<0.0000
FLU	<0.0000
1123cdPY	<0.0000
1MN	<0.0000
2MN	<0.0000
PY	<0.0000

Figure 3

SOIL CHEMISTRY MAP

Noble Energy, Inc. ~ State-64N64W 36NESE

NESE Sec. 36, T4N, R64W, 6th PM

Weld County, Colorado

40.262070°, -104.493062°

Project No. C022-099	API # 05-123-17799	Facility # 329760	
Date 9/20/23	Remediation # 22374	Filename 22099Q1	

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

May 24, 2023

Paul Henehan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - State 64N64W 36NESE

Work Order # 2304508

Enclosed are the results of analyses for samples received by Summit Scientific on 04/24/23 16:17. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Scott Sheely For Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PWVSB-1 6FT	2304508-01	Soil	04/24/23 00:00	04/24/23 16:17
PWVSB-2 6FT	2304508-02	Soil	04/24/23 00:00	04/24/23 16:17
PWVSB-3 6FT	2304508-03	Soil	04/24/23 00:00	04/24/23 16:17
PWVSB-4 6FT	2304508-04	Soil	04/24/23 00:00	04/24/23 16:17
PWVSB-5 6FT	2304508-05	Soil	04/24/23 00:00	04/24/23 16:17
PWVSB-6 6FT	2304508-06	Soil	04/24/23 00:00	04/24/23 16:17
PWVSB-7 6FT	2304508-07	Soil	04/24/23 00:00	04/24/23 16:17
9FL09 SB-1 4FT	2304508-08	Soil	04/24/23 00:00	04/24/23 16:17
9FL09 SB-2 4FT	2304508-09	Soil	04/24/23 00:00	04/24/23 16:17
9FL09 SB-3 4FT	2304508-10	Soil	04/24/23 00:00	04/24/23 16:17
9FL09 SB-4 4FT	2304508-11	Soil	04/24/23 00:00	04/24/23 16:17
9FL09 SB-5 4FT	2304508-12	Soil	04/24/23 00:00	04/24/23 16:17
9FL09 SB-6 4FT	2304508-13	Soil	04/24/23 00:00	04/24/23 16:17
9FL03 SB-1 4FT	2304508-14	Soil	04/24/23 00:00	04/24/23 16:17
9FL03 SB-2 4FT	2304508-15	Soil	04/24/23 00:00	04/24/23 16:17
9FL03 SB-3 4FT	2304508-16	Soil	04/24/23 00:00	04/24/23 16:17
9FL03 SB-4 4FT	2304508-17	Soil	04/24/23 00:00	04/24/23 16:17
9FL03 SB-5 4FT	2304508-18	Soil	04/24/23 00:00	04/24/23 16:17
9FL03 SB-6 4FT	2304508-19	Soil	04/24/23 00:00	04/24/23 16:17

Summit Scientific

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

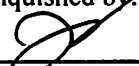

SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 2
2304508.1	

Client: Fremont Env		Send Data To: Project Manager: Paul Henahan		Send Invoice To: Company: Noble	
Address:		E-Mail: Paulh@fremontenv.com		Project Name/Location:	
City/State/Zip:		jeffg@fremontenv.com ethanh@fremontenv.com		AFE#:	
Phone:		Project Name: State-64N64W 36NESE		PO/Billing Codes:	
Sampler Name: JG		Project Number:		Contact:	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX+N	TMBs (915)	DRO,ORO,GRO	PAHs (915)	ECGPM, SAR, Raton	Metals (915)	
1	PWV SB-1 GF+	04/24/23		2			X			X			X	X	X	X	X	X	
2	PWV SB-2 GF+																		
3	PWV SB-3 GF+																		
4	PWV SB-4 GF+																		
5	PWV SB-5 GF+																		
6	PWV SB-6 GF+																		
7	PWV SB-7 GF+																		
8	9FLO9 SB-1 4F+																		
9	9FLO9 SB-2 4F+																		
10	9FLO9 SB-3 4F+																		
11	9FLO9 SB-4 4F+																		
12	9FLO9 SB-5 4F+																		
13	9FLO9 SB-6 4F+																		
14	9FLO3 SB-1 4F+																		
15	9FLO3 SB-2 4F+																		

Relinquished by: 	Date/Time: 04/24/23 1615	Received by: 	Date/Time: 4/24/23 1617	TAT Business Days	Field DO	Notes: Bill to Noble
Relinquished by:	Date/Time:	Received by:	Date/Time:	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: 24.2	Corrected Temperature	IR gun #: 02	HNO3 lot #:			

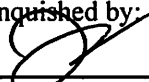
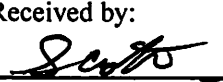
SUMMIT SCIENTIFIC

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

Lab ID	Page 2 of 2
2304508-2	

Client: Fremont Env		Send Data To:		Send Invoice To:	
Address:		Project Manager: Paul Henahan		Company: Noble	
City/State/Zip:		E-Mail: Paul.h@fremontenv.com		Project Name/Location:	
Phone:		jeffg@fremontenv.com Ethonb@fremontenv.com		AFE#:	
Sampler Name: JG		Project Name: State-64N64W 36N5E		PO/Billing Codes:	
		Project Number:		Contact:	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil			BTEX+N	TMBs (915)	GRD, PRO, ORP	PAHs (915)	PC, pH, SAR, Baran	Metals (915)	
1	9FLO3 SB-3 4Ft	04/24/23		1			X			X			X	X	X	X	X	X	
2	9FLO3 SB-4 4Ft	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓	
3	9FLO3 SB-5 4Ft	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓	
4	9FLO3 SB-6 4Ft	↓		↓			↓			↓			↓	↓	↓	↓	↓	↓	
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: 	Date/Time: 04/24/23 1615	Received by: 	Date/Time: 4/24/23 1615	TAT Business Days	Field DO	Notes: Bill to Noble
Relinquished by:	Date/Time:	Received by:	Date/Time:	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	X Field Turb.	
Temperature Upon Receipt: 29.2		Corrected Temperature: —		IR gun #: 02	HNO3 lot #:	

S₂

2/2


S2 Work Order# 2304508

Sample Receipt Checklist

Client: Fremont Environmental Client Project ID: State -64N64W 36 NESEShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☒ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 27.2 Thermometer # 02

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	5/4/2013
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

 Custodian Printed Name

 4/24/23 1617
 Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-1 6FT
2304508-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020		mg/kg	1	BGD0957	04/28/23	04/28/23	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 Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0960	04/28/23	04/29/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.3 %		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 - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-1 6FT
2304508-01 (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	BGD0899	04/26/23	04/28/23	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		74.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		82.7 %		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	0.0176	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-1 6FT
2304508-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.730	0.215		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	32.8	0.430		"	"	"	"	"	"	
Cadmium	ND	0.215		"	"	"	"	"	"	
Copper	1.59	0.430		"	"	"	"	"	"	
Lead	2.15	0.215		"	"	"	"	"	"	
Nickel	1.76	0.430		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0215		"	"	"	"	"	"	
Zinc	6.66	0.430		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	35.8	0.0538		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	3.04	0.0538		"	"	"	"	"	"	
Sodium	1.06	0.0538		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 04/24/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0457	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-1 6FT
2304508-01 (Soil)

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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	93.0			%	1	BGD0845	04/25/23	04/27/23	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)	0.172	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.75			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-2 6FT
2304508-02 (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	BGD0957	04/28/23	04/28/23	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		103 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		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	BGD0960	04/28/23	04/29/23	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		80.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-2 6FT
2304508-02 (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	BGD0899	04/26/23	04/28/23	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		69.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		83.7 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-2 6FT
2304508-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.70	0.212		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	37.7	0.424		"	"	"	"	"	"	
Cadmium	ND	0.212		"	"	"	"	"	"	
Copper	3.00	0.424		"	"	"	"	"	"	
Lead	3.30	0.212		"	"	"	"	"	"	
Nickel	2.77	0.424		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0212		"	"	"	"	"	"	
Zinc	11.1	0.424		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	94.5	0.0529		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	19.4	0.0529		"	"	"	"	"	"	
Sodium	38.9	0.0529		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.952	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-2 6FT
2304508-02 (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	94.4			%	1	BGD0845	04/25/23	04/27/23	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)	0.812	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.28			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-3 6FT
2304508-03 (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	BGD0957	04/28/23	04/28/23	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		97.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.5 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %		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	BGD0960	04/28/23	04/29/23	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		79.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-3 6FT
2304508-03 (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	BGD0899	04/26/23	04/28/23	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		66.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		79.4 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-3 6FT
2304508-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.54	0.215		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	36.2	0.430		"	"	"	"	"	"	
Cadmium	ND	0.215		"	"	"	"	"	"	
Copper	2.91	0.430		"	"	"	"	"	"	
Lead	3.20	0.215		"	"	"	"	"	"	
Nickel	2.81	0.430		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0215		"	"	"	"	"	"	
Zinc	11.5	0.430		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	76.6	0.0537		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	13.4	0.0537		"	"	"	"	"	"	
Sodium	27.9	0.0537		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.773	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-3 6FT
2304508-03 (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	93.0			%	1	BGD0845	04/25/23	04/27/23	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)	0.606	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.53			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-4 6FT
2304508-04 (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	BGD0957	04/28/23	04/28/23	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		102 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		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	BGD0960	04/28/23	04/29/23	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		86.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-4 6FT
2304508-04 (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	BGD0899	04/26/23	04/28/23	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		68.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		87.9 %		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
Boron	ND	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-4 6FT
2304508-04 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.32	0.209		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	34.7	0.419		"	"	"	"	"	"	
Cadmium	ND	0.209		"	"	"	"	"	"	
Copper	2.22	0.419		"	"	"	"	"	"	
Lead	2.04	0.209		"	"	"	"	"	"	
Nickel	1.77	0.419		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0209		"	"	"	"	"	"	
Zinc	6.21	0.419		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	60.7	0.0524		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	11.9	0.0524		"	"	"	"	"	"	
Sodium	33.4	0.0524		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.03	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-4 6FT
2304508-04 (Soil)

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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	95.5			%	1	BGD0845	04/25/23	04/27/23	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)	0.585	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.57			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-5 6FT
2304508-05 (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	BGD0957	04/28/23	04/28/23	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		111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.8 %		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	BGD0960	04/28/23	04/29/23	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		85.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-5 6FT
2304508-05 (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	BGD0899	04/26/23	04/28/23	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		57.6 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.0 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-5 6FT
2304508-05 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.486	0.212		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	25.4	0.425		"	"	"	"	"	"	
Cadmium	ND	0.212		"	"	"	"	"	"	
Copper	1.69	0.425		"	"	"	"	"	"	
Lead	2.35	0.212		"	"	"	"	"	"	
Nickel	1.78	0.425		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0212		"	"	"	"	"	"	
Zinc	7.24	0.425		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	26.6	0.0531		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	2.70	0.0531		"	"	"	"	"	"	
Sodium	1.38	0.0531		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0682	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-5 6FT
2304508-05 (Soil)

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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	94.1			%	1	BGD0845	04/25/23	04/27/23	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)	0.164	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.74			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-6 6FT
2304508-06 (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	BGD0957	04/28/23	04/28/23	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		108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.7 %		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	BGD0960	04/28/23	04/29/23	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		82.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-6 6FT
2304508-06 (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	BGD0899	04/26/23	04/28/23	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		54.4 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.0 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-6 6FT
2304508-06 (Soil)

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Total Metals by EPA 6020B

Arsenic	1.23	0.213	mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B
Barium	43.2	0.426	"	"	"	"	"	"
Cadmium	ND	0.213	"	"	"	"	"	"
Copper	1.80	0.426	"	"	"	"	"	"
Lead	2.77	0.213	"	"	"	"	"	"
Nickel	1.90	0.426	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"
Silver	ND	0.0213	"	"	"	"	"	"
Zinc	7.16	0.426	"	"	"	"	"	"

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	BGD1008	04/30/23	05/01/23	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	40.0	0.0532		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	2.75	0.0532		"	"	"	"	"	"	
Sodium	4.62	0.0532		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.191	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-6 6FT
2304508-06 (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	94.0			%	1	BGD0845	04/25/23	04/27/23	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)	0.250	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.73			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-7 6FT
2304508-07 (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	BGD0957	04/28/23	04/28/23	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		92.3 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		97.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %		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	BGD0960	04/28/23	04/29/23	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		76.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-7 6FT
2304508-07 (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	BGD0899	04/26/23	04/28/23	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		66.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		78.8 %		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
Boron	ND	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-7 6FT
2304508-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.748	0.213	mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B
Barium	26.1	0.426	"	"	"	"	"	"
Cadmium	ND	0.213	"	"	"	"	"	"
Copper	1.59	0.426	"	"	"	"	"	"
Lead	1.82	0.213	"	"	"	"	"	"
Nickel	1.52	0.426	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"
Silver	ND	0.0213	"	"	"	"	"	"
Zinc	5.65	0.426	"	"	"	"	"	"

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	BGD1008	04/30/23	05/01/23	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	76.7	0.0532		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	16.0	0.0532		"	"	"	"	"	"	
Sodium	48.7	0.0532		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.32	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PWVSB-7 6FT
2304508-07 (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	93.9			%	1	BGD0845	04/25/23	04/27/23	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)	0.760	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.64			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-1 4FT
2304508-08 (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	BGD0957	04/28/23	04/28/23	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		99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		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	BGD0960	04/28/23	04/29/23	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		87.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-1 4FT
2304508-08 (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	BGD0899	04/26/23	04/28/23	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		51.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		64.3 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-1 4FT
2304508-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.51	0.213	mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B
Barium	43.2	0.426	"	"	"	"	"	"
Cadmium	ND	0.213	"	"	"	"	"	"
Copper	3.12	0.426	"	"	"	"	"	"
Lead	3.51	0.213	"	"	"	"	"	"
Nickel	3.31	0.426	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"
Silver	0.0298	0.0213	"	"	"	"	"	"
Zinc	10.9	0.426	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

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

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL								
Chromium, Hexavalent	ND	0.30			mg/kg dry	1	BGD1008	04/30/23	05/01/23	EPA 7196A	

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

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

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL								
Calcium	70.0	0.0532			mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	10.1	0.0532			"	"	"	"	"	"	
Sodium	11.5	0.0532			"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL								
Sodium Adsorption Ratio	0.340	0.00100			units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-1 4FT
2304508-08 (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	93.9			%	1	BGD0845	04/25/23	04/27/23	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)	0.545	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.78			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-2 4FT
2304508-09 (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	BGD0957	04/28/23	04/28/23	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		118 %		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	BGD0960	04/28/23	04/29/23	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		81.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-2 4FT
2304508-09 (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	BGD0899	04/26/23	04/28/23	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		54.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		63.5 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-2 4FT
2304508-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.04	0.219		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	92.4	0.438		"	"	"	"	"	"	
Cadmium	ND	0.219		"	"	"	"	"	"	
Copper	2.81	0.438		"	"	"	"	"	"	
Lead	3.68	0.219		"	"	"	"	"	"	
Nickel	3.95	0.438		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0219		"	"	"	"	"	"	
Zinc	11.6	0.438		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	52.4	0.0547		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	7.56	0.0547		"	"	"	"	"	"	
Sodium	8.01	0.0547		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.274	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-2 4FT
2304508-09 (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	91.4			%	1	BGD0845	04/25/23	04/27/23	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)	0.393	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.72			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-3 4FT
2304508-10 (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	BGD0957	04/28/23	04/28/23	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		104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %		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	BGD0960	04/28/23	04/29/23	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		96.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-3 4FT
2304508-10 (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	BGD0899	04/26/23	04/28/23	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		51.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.0 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-3 4FT
2304508-10 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.12	0.217		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	72.9	0.433		"	"	"	"	"	"	
Cadmium	ND	0.217		"	"	"	"	"	"	
Copper	2.78	0.433		"	"	"	"	"	"	
Lead	4.09	0.217		"	"	"	"	"	"	
Nickel	4.22	0.433		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0217		"	"	"	"	"	"	
Zinc	11.5	0.433		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	26.2	0.0541		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	5.40	0.0541		"	"	"	"	"	"	
Sodium	11.1	0.0541		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.516	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-3 4FT
2304508-10 (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	92.3			%	1	BGD0845	04/25/23	04/27/23	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)	0.234	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.88			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-4 4FT
2304508-11 (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	BGD0957	04/28/23	04/28/23	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		112 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		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	BGD0960	04/28/23	04/29/23	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		118 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-4 4FT
2304508-11 (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	BGD0899	04/26/23	04/28/23	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		54.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		51.0 %		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	0.0328	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-4 4FT
2304508-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.17	0.213		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	85.9	0.425		"	"	"	"	"	"	
Cadmium	ND	0.213		"	"	"	"	"	"	
Copper	2.38	0.425		"	"	"	"	"	"	
Lead	3.41	0.213		"	"	"	"	"	"	
Nickel	3.59	0.425		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0213		"	"	"	"	"	"	
Zinc	10.2	0.425		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	107	0.0532		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	8.86	0.0532		"	"	"	"	"	"	
Sodium	16.1	0.0532		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.402	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-4 4FT
2304508-11 (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	94.1			%	1	BGD0845	04/25/23	04/27/23	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)	0.379	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.56			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-5 4FT
2304508-12 (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	BGD0957	04/28/23	04/28/23	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		106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		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	BGD0960	04/28/23	04/29/23	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		90.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-5 4FT
2304508-12 (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	BGD0899	04/26/23	04/28/23	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		62.3 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.1 %		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	BGD1011	04/30/23	05/04/23	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
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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 - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-5 4FT
2304508-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.51	0.216	mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B
Barium	57.2	0.432	"	"	"	"	"	"
Cadmium	ND	0.216	"	"	"	"	"	"
Copper	3.07	0.432	"	"	"	"	"	"
Lead	3.58	0.216	"	"	"	"	"	"
Nickel	4.07	0.432	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"
Silver	0.0375	0.0216	"	"	"	"	"	"
Zinc	10.5	0.432	"	"	"	"	"	"

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	BGD1008	04/30/23	05/01/23	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	67.6	0.0539		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	11.6	0.0539		"	"	"	"	"	"	
Sodium	33.1	0.0539		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.979	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-5 4FT
2304508-12 (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	92.7			%	1	BGD0845	04/25/23	04/27/23	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)	0.560	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.48			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-6 4FT
2304508-13 (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	BGD0957	04/28/23	04/28/23	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		117 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		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	BGD0960	04/28/23	04/29/23	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		99.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-6 4FT
2304508-13 (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	BGD0899	04/26/23	04/28/23	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		67.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.1 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-6 4FT
2304508-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.04	0.213	mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B
Barium	66.5	0.425	"	"	"	"	"	"
Cadmium	ND	0.213	"	"	"	"	"	"
Copper	2.81	0.425	"	"	"	"	"	"
Lead	4.01	0.213	"	"	"	"	"	"
Nickel	3.61	0.425	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"
Silver	0.0268	0.0213	"	"	"	"	"	"
Zinc	11.2	0.425	"	"	"	"	"	"

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	BGD1008	04/30/23	05/01/23	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	37.1	0.0532		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	5.95	0.0532		"	"	"	"	"	"	
Sodium	58.4	0.0532		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.35	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL09 SB-6 4FT
2304508-13 (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	94.0			%	1	BGD0845	04/25/23	04/27/23	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)	0.477	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	7.85			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-1 4FT
2304508-14 (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	BGD0957	04/28/23	04/28/23	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		104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		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	BGD0960	04/28/23	04/29/23	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		122 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-1 4FT
2304508-14 (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	BGD0899	04/26/23	04/28/23	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		70.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.8 %		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
Boron	ND	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-1 4FT
2304508-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.895	0.214	mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B
Barium	26.2	0.428	"	"	"	"	"	"
Cadmium	ND	0.214	"	"	"	"	"	"
Copper	2.33	0.428	"	"	"	"	"	"
Lead	2.95	0.214	"	"	"	"	"	"
Nickel	1.66	0.428	"	"	"	"	"	"
Selenium	ND	0.260	0.175	"	"	"	"	"
Silver	ND	0.0214	"	"	"	"	"	"
Zinc	8.22	0.428	"	"	"	"	"	"

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	BGD1008	04/30/23	05/01/23	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	35.8	0.0536		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	8.69	0.0536		"	"	"	"	"	"	
Sodium	4.73	0.0536		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.184	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-1 4FT
2304508-14 (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	93.4			%	1	BGD0845	04/25/23	04/27/23	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)	0.330	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	6.46			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-2 4FT
2304508-15 (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	BGD0957	04/28/23	04/28/23	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		107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %		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	BGD0960	04/28/23	04/29/23	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		82.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-2 4FT
2304508-15 (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	BGD0899	04/26/23	04/28/23	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		66.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.7 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-2 4FT
2304508-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.804	0.208		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	26.1	0.415		"	"	"	"	"	"	
Cadmium	ND	0.208		"	"	"	"	"	"	
Copper	2.36	0.415		"	"	"	"	"	"	
Lead	2.39	0.208		"	"	"	"	"	"	
Nickel	1.66	0.415		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0208		"	"	"	"	"	"	
Zinc	7.42	0.415		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

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

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD1008	04/30/23	05/01/23	EPA 7196A	

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

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

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	59.4	0.0519		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	10.8	0.0519		"	"	"	"	"	"	
Sodium	0.718	0.0519		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0225	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-2 4FT
2304508-15 (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	96.3			%	1	BGD0845	04/25/23	04/27/23	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)	0.100	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	6.75			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-3 4FT
2304508-16 (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	BGD0957	04/28/23	04/28/23	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		120 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		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	BGD0960	04/28/23	04/29/23	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		79.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-3 4FT
2304508-16 (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	BGD0899	04/26/23	04/28/23	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		64.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.8 %		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
Boron	ND	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-3 4FT
2304508-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.791	0.206		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	32.2	0.413		"	"	"	"	"	"	
Cadmium	ND	0.206		"	"	"	"	"	"	
Copper	2.03	0.413		"	"	"	"	"	"	
Lead	2.42	0.206		"	"	"	"	"	"	
Nickel	1.68	0.413		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0206		"	"	"	"	"	"	
Zinc	6.97	0.413		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	66.8	0.0516		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	11.7	0.0516		"	"	"	"	"	"	
Sodium	0.773	0.0516		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 04/24/23 00:00

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0229	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-3 4FT
2304508-16 (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	97.0			%	1	BGD0845	04/25/23	04/27/23	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)	0.104	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	6.39			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-4 4FT
2304508-17 (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	BGD0957	04/28/23	04/29/23	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		118 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		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	BGD0960	04/28/23	04/29/23	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		82.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-4 4FT
2304508-17 (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	BGD0899	04/26/23	04/28/23	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		60.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.2 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-4 4FT
2304508-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.748	0.205		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	25.8	0.411		"	"	"	"	"	"	
Cadmium	ND	0.205		"	"	"	"	"	"	
Copper	2.26	0.411		"	"	"	"	"	"	
Lead	2.28	0.205		"	"	"	"	"	"	
Nickel	1.63	0.411		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0205		"	"	"	"	"	"	
Zinc	7.14	0.411		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	124	0.0513		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	21.4	0.0513		"	"	"	"	"	"	
Sodium	0.881	0.0513		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0192	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-4 4FT
2304508-17 (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	97.4			%	1	BGD0845	04/25/23	04/27/23	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)	0.0641	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	6.21			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-5 4FT
2304508-18 (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	BGD0957	04/28/23	04/29/23	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		97.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.3 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.3 %		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	BGD0960	04/28/23	04/29/23	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		91.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-5 4FT
2304508-18 (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	BGD0899	04/26/23	04/28/23	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		72.3 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		80.2 %		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	BGD1011	04/30/23	05/04/23	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
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-5 4FT
2304508-18 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.635	0.216		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	18.1	0.432		"	"	"	"	"	"	
Cadmium	ND	0.216		"	"	"	"	"	"	
Copper	1.76	0.432		"	"	"	"	"	"	
Lead	2.19	0.216		"	"	"	"	"	"	
Nickel	1.19	0.432		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0216		"	"	"	"	"	"	
Zinc	5.74	0.432		"	"	"	"	"	"	

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	BGD1008	04/30/23	05/01/23	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	37.5	0.0540		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	9.05	0.0540		"	"	"	"	"	"	
Sodium	2.79	0.0540		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.106	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-5 4FT
2304508-18 (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	92.6			%	1	BGD0845	04/25/23	04/27/23	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)	0.643	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	4.69			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-6 4FT
2304508-19 (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	BGD0957	04/28/23	04/29/23	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		111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		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	BGD0960	04/28/23	04/29/23	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		101 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-6 4FT
2304508-19 (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	BGD0899	04/26/23	04/28/23	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		58.3 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		64.8 %		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
Boron	ND	0.0100		mg/L	1	BGD1011	04/30/23	05/04/23	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
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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-6 4FT
2304508-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.571	0.211		mg/kg dry	1	BGD0941	04/27/23	05/04/23	EPA 6020B	
Barium	24.2	0.422		"	"	"	"	"	"	
Cadmium	ND	0.211		"	"	"	"	"	"	
Copper	1.84	0.422		"	"	"	"	"	"	
Lead	2.07	0.211		"	"	"	"	"	"	
Nickel	1.41	0.422		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0211		"	"	"	"	"	"	
Zinc	5.79	0.422		"	"	"	"	"	"	

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	BGD0972	04/28/23	04/28/23	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	143	0.0528		mg/L dry	1	BGD0999	04/30/23	05/04/23	EPA 6020B	
Magnesium	25.3	0.0528		"	"	"	"	"	"	
Sodium	1.74	0.0528		"	"	"	"	"	"	

Calculated Analysis

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0353	0.00100		units	1	BGE0184	05/05/23	05/05/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

9FL03 SB-6 4FT
2304508-19 (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	94.8			%	1	BGD0845	04/25/23	04/27/23	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)	0.102	0.0100		mmhos/cm	1	BGE0018	05/01/23	05/01/23	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	6.80			pH Units	1	BGE0019	05/01/23	05/01/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGD0957 - EPA 5030 Soil MS

Blank (BGD0957-BLK1)

Prepared & Analyzed: 04/28/23

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	0.0376		"	0.0400		94.1	50-150			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	50-150			

LCS (BGD0957-BS1)

Prepared & Analyzed: 04/28/23

Benzene	0.0875	0.0020	mg/kg	0.100		87.5	70-130			
Toluene	0.0940	0.0050	"	0.100		94.0	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.222	0.010	"	0.200		111	70-130			
o-Xylene	0.103	0.0050	"	0.100		103	70-130			
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130			
1,3,5-Trimethylbenzene	0.113	0.0050	"	0.100		113	70-130			
Naphthalene	0.0818	0.0038	"	0.100		81.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0353		"	0.0400		88.2	50-150			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150			

Matrix Spike (BGD0957-MS1)

Source: 2304508-01

Prepared & Analyzed: 04/28/23

Benzene	0.0826	0.0020	mg/kg	0.100	ND	82.6	70-130			
Toluene	0.0901	0.0050	"	0.100	ND	90.1	70-130			
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130			
m,p-Xylene	0.209	0.010	"	0.200	ND	105	70-130			
o-Xylene	0.0997	0.0050	"	0.100	ND	99.7	70-130			
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130			
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130			
Naphthalene	0.0795	0.0038	"	0.100	ND	79.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0361		"	0.0400		90.2	50-150			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.0	50-150			

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD0957 - EPA 5030 Soil MS

Matrix Spike Dup (BGD0957-MSD1)	Source: 2304508-01			Prepared & Analyzed: 04/28/23						
Benzene	0.0846	0.0020	mg/kg	0.100	ND	84.6	70-130	2.44	30	
Toluene	0.0934	0.0050	"	0.100	ND	93.4	70-130	3.57	30	
Ethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	2.90	30	
m,p-Xylene	0.216	0.010	"	0.200	ND	108	70-130	3.48	30	
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130	3.95	30	
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	4.18	30	
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130	2.26	30	
Naphthalene	0.0865	0.0038	"	0.100	ND	86.5	70-130	8.35	30	
Surrogate: 1,2-Dichloroethane-d4	0.0351		"	0.0400		87.7	50-150			
Surrogate: Toluene-d8	0.0389		"	0.0400		97.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150			

Summit Scientific

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD0960 - EPA 3550A

Blank (BGD0960-BLK1)

Prepared: 04/28/23 Analyzed: 04/29/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	10.8		"	12.5		86.3	30-150			

LCS (BGD0960-BS1)

Prepared: 04/28/23 Analyzed: 04/29/23

C10-C28 (DRO)	412	50	mg/kg	500		82.4	70-130			
Surrogate: o-Terphenyl	11.0		"	12.5		87.7	30-150			

Matrix Spike (BGD0960-MS1)

Source: 2304508-01

Prepared: 04/28/23 Analyzed: 04/29/23

C10-C28 (DRO)	413	50	mg/kg	500	14.9	79.7	70-130			
Surrogate: o-Terphenyl	10.3		"	12.5		82.2	30-150			

Matrix Spike Dup (BGD0960-MSD1)

Source: 2304508-01

Prepared: 04/28/23 Analyzed: 04/29/23

C10-C28 (DRO)	442	50	mg/kg	500	14.9	85.5	70-130	6.76	20	
Surrogate: o-Terphenyl	10.4		"	12.5		83.5	30-150			

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD0899 - EPA 5030 Soil MS

Blank (BGD0899-BLK1)

Prepared: 04/26/23 Analyzed: 04/27/23

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	0.0387		"	0.0333		116	40-150			
Surrogate: Fluoranthene-d10	0.0405		"	0.0333		122	40-150			

LCS (BGD0899-BS1)

Prepared: 04/26/23 Analyzed: 04/27/23

Acenaphthene	0.0320	0.00500	mg/kg	0.0333	96.1	31-137
Anthracene	0.0324	0.00500	"	0.0333	97.3	30-120
Benzo (a) anthracene	0.0331	0.00500	"	0.0333	99.2	30-120
Benzo (a) pyrene	0.0316	0.00500	"	0.0333	94.8	30-120
Benzo (b) fluoranthene	0.0339	0.00500	"	0.0333	102	30-120
Benzo (k) fluoranthene	0.0338	0.00500	"	0.0333	101	30-120
Chrysene	0.0398	0.00500	"	0.0333	119	30-120
Dibenz (a,h) anthracene	0.0300	0.00500	"	0.0333	89.9	30-120
Fluoranthene	0.0331	0.00500	"	0.0333	99.2	30-120
Fluorene	0.0296	0.00500	"	0.0333	88.7	30-120
Indeno (1,2,3-cd) pyrene	0.0365	0.00500	"	0.0333	109	30-120
Pyrene	0.0435	0.00500	"	0.0333	130	35-142
1-Methylnaphthalene	0.0289	0.00500	"	0.0333	86.6	35-142
2-Methylnaphthalene	0.0297	0.00500	"	0.0333	89.1	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0298		"	0.0333	89.5	40-150
Surrogate: Fluoranthene-d10	0.0339		"	0.0333	102	40-150

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGD0899 - EPA 5030 Soil MS

Matrix Spike (BGD0899-MS1)

Source: 2304508-01

Prepared: 04/26/23 Analyzed: 04/27/23

Acenaphthene	0.0280	0.00500	mg/kg	0.0333	ND	83.9	31-137		
Anthracene	0.0246	0.00500	"	0.0333	ND	73.7	30-120		
Benzo (a) anthracene	0.0301	0.00500	"	0.0333	ND	90.4	30-120		
Benzo (a) pyrene	0.0234	0.00500	"	0.0333	ND	70.2	30-120		
Benzo (b) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.3	30-120		
Benzo (k) fluoranthene	0.0170	0.00500	"	0.0333	ND	51.0	30-120		
Chrysene	0.0296	0.00500	"	0.0333	ND	88.7	30-120		
Dibenz (a,h) anthracene	0.0199	0.00500	"	0.0333	ND	59.6	30-120		
Fluoranthene	0.0243	0.00500	"	0.0333	ND	72.9	30-120		
Fluorene	0.0280	0.00500	"	0.0333	ND	84.1	30-120		
Indeno (1,2,3-cd) pyrene	0.0198	0.00500	"	0.0333	ND	59.3	30-120		
Pyrene	0.0302	0.00500	"	0.0333	ND	90.5	35-142		
1-Methylnaphthalene	0.0241	0.00500	"	0.0333	ND	72.3	15-130		
2-Methylnaphthalene	0.0285	0.00500	"	0.0333	ND	85.5	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0234		"	0.0333		70.3	40-150		
Surrogate: Fluoranthene-d10	0.0263		"	0.0333		78.9	40-150		

Matrix Spike Dup (BGD0899-MSD1)

Source: 2304508-01

Prepared: 04/26/23 Analyzed: 04/27/23

Acenaphthene	0.0220	0.00500	mg/kg	0.0333	ND	66.0	31-137	24.0	30
Anthracene	0.0212	0.00500	"	0.0333	ND	63.6	30-120	14.6	30
Benzo (a) anthracene	0.0272	0.00500	"	0.0333	ND	81.5	30-120	10.4	30
Benzo (a) pyrene	0.0215	0.00500	"	0.0333	ND	64.4	30-120	8.61	30
Benzo (b) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.8	30-120	2.78	30
Benzo (k) fluoranthene	0.0167	0.00500	"	0.0333	ND	50.1	30-120	1.87	30
Chrysene	0.0252	0.00500	"	0.0333	ND	75.6	30-120	16.0	30
Dibenz (a,h) anthracene	0.0174	0.00500	"	0.0333	ND	52.1	30-120	13.4	30
Fluoranthene	0.0219	0.00500	"	0.0333	ND	65.8	30-120	10.2	30
Fluorene	0.0221	0.00500	"	0.0333	ND	66.4	30-120	23.5	30
Indeno (1,2,3-cd) pyrene	0.0175	0.00500	"	0.0333	ND	52.5	30-120	12.2	30
Pyrene	0.0258	0.00500	"	0.0333	ND	77.4	35-142	15.6	30
1-Methylnaphthalene	0.0214	0.00500	"	0.0333	ND	64.1	15-130	12.0	50
2-Methylnaphthalene	0.0236	0.00500	"	0.0333	ND	70.7	15-130	19.0	50
Surrogate: 2-Methylnaphthalene-d10	0.0197		"	0.0333		59.0	40-150		
Surrogate: Fluoranthene-d10	0.0242		"	0.0333		72.5	40-150		

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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD1011 - EPA 3050B

Blank (BGD1011-BLK1)

Prepared: 04/30/23 Analyzed: 05/04/23

Boron ND 0.0100 mg/L

LCS (BGD1011-BS1)

Prepared: 04/30/23 Analyzed: 05/04/23

Boron 4.21 0.0100 mg/L 5.00 84.2 80-120

Duplicate (BGD1011-DUP1)

Source: 2304508-01

Prepared: 04/30/23 Analyzed: 05/04/23

Boron 0.0177 0.0100 mg/L 0.0176 0.624 20

Matrix Spike (BGD1011-MS1)

Source: 2304508-01

Prepared: 04/30/23 Analyzed: 05/04/23

Boron 3.41 0.0100 mg/L 5.00 0.0176 67.9 75-125 QM-07

Matrix Spike Dup (BGD1011-MSD1)

Source: 2304508-01

Prepared: 04/30/23 Analyzed: 05/04/23

Boron 3.55 0.0100 mg/L 5.00 0.0176 70.6 75-125 3.88 25 QM-07

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PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD0941 - EPA 3050B

Blank (BGD0941-BLK1)

Prepared: 04/27/23 Analyzed: 05/04/23

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 (BGD0941-BS1)

Prepared: 04/27/23 Analyzed: 05/04/23

Arsenic	32.4	0.200	mg/kg wet	40.0	81.0	80-120
Barium	34.7	0.400	"	40.0	86.8	80-120
Cadmium	1.88	0.200	"	2.00	94.2	80-120
Copper	33.1	0.400	"	40.0	82.6	80-120
Lead	18.8	0.200	"	20.0	94.0	80-120
Nickel	32.5	0.400	"	40.0	81.2	80-120
Selenium	3.51	0.260	"	4.00	87.6	80-120
Silver	1.88	0.0200	"	2.00	94.2	80-120
Zinc	32.9	0.400	"	40.0	82.2	80-120

Duplicate (BGD0941-DUP1)

Source: 2304508-01

Prepared: 04/27/23 Analyzed: 05/04/23

Arsenic	0.760	0.215	mg/kg dry	0.730	3.98	20
Barium	33.2	0.430	"	32.8	1.13	20
Cadmium	0.0976	0.215	"	0.0946	3.13	20
Copper	1.60	0.430	"	1.59	0.648	20
Lead	2.22	0.215	"	2.15	3.01	20
Nickel	1.80	0.430	"	1.76	2.17	20
Selenium	ND	0.260	"	ND		20
Silver	0.0108	0.0215	"	0.0112	3.92	20
Zinc	6.72	0.430	"	6.66	0.765	20

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD0941 - EPA 3050B

Matrix Spike (BGD0941-MS1)			Source: 2304508-01		Prepared: 04/27/23 Analyzed: 05/04/23					
Arsenic	33.5	0.215	mg/kg dry	43.0	0.730	76.2	75-125			
Barium	62.2	0.430	"	43.0	32.8	68.2	75-125			QM-07
Cadmium	1.63	0.215	"	2.15	0.0946	71.5	75-125			QM-07
Copper	28.1	0.430	"	43.0	1.59	61.6	75-125			QM-07
Lead	17.2	0.215	"	21.5	2.15	70.2	75-125			QM-07
Nickel	28.1	0.430	"	43.0	1.76	61.1	75-125			QM-07
Selenium	3.49	0.260	"	4.30	ND	81.1	75-125			
Silver	1.52	0.0215	"	2.15	0.0112	69.9	75-125			QM-07
Zinc	33.5	0.430	"	43.0	6.66	62.4	75-125			QM-07

Matrix Spike Dup (BGD0941-MSD1)			Source: 2304508-01		Prepared: 04/27/23 Analyzed: 05/04/23					
Arsenic	33.8	0.215	mg/kg dry	43.0	0.730	77.0	75-125	1.01	25	
Barium	67.8	0.430	"	43.0	32.8	81.2	75-125	8.57	25	
Cadmium	1.80	0.215	"	2.15	0.0946	79.1	75-125	9.56	25	
Copper	28.9	0.430	"	43.0	1.59	63.6	75-125	3.02	25	QM-07
Lead	18.6	0.215	"	21.5	2.15	76.7	75-125	7.85	25	
Nickel	29.0	0.430	"	43.0	1.76	63.3	75-125	3.21	25	QM-07
Selenium	3.44	0.260	"	4.30	ND	80.0	75-125	1.38	25	
Silver	1.68	0.0215	"	2.15	0.0112	77.4	75-125	10.1	25	
Zinc	34.6	0.430	"	43.0	6.66	64.8	75-125	3.13	25	QM-07

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGD0972 - 3060A Mod

Blank (BGD0972-BLK1)					Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BGD0972-BS1)					Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	20.4	0.30	mg/kg wet	25.0		81.8	80-120			
Duplicate (BGD0972-DUP1)					Source: 2304494-14 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BGD0972-MS1)					Source: 2304494-14 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	34.4	0.30	mg/kg dry	38.5	ND	89.4	75-125			
Matrix Spike Dup (BGD0972-MSD1)					Source: 2304494-14 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	32.7	0.30	mg/kg dry	38.5	ND	85.0	75-125	5.05	20	

Batch BGD1008 - 3060A Mod

Blank (BGD1008-BLK1)					Prepared: 04/30/23 Analyzed: 05/01/23					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BGD1008-BS1)					Prepared: 04/30/23 Analyzed: 05/01/23					
Chromium, Hexavalent	23.8	0.30	mg/kg wet	25.0		95.2	80-120			
Duplicate (BGD1008-DUP1)					Source: 2304508-01 Prepared: 04/30/23 Analyzed: 05/01/23					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BGD1008-MS1)					Source: 2304508-01 Prepared: 04/30/23 Analyzed: 05/01/23					
Chromium, Hexavalent	26.1	0.30	mg/kg dry	26.9	ND	97.2	75-125			

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGD1008 - 3060A Mod

Matrix Spike Dup (BGD1008-MSD1)

Source: 2304508-01

Prepared: 04/30/23 Analyzed: 05/01/23

Chromium, Hexavalent	26.2	0.30	mg/kg dry	26.9	ND	97.4	75-125	0.206	20
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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 BGD0999 - General Preparation

Blank (BGD0999-BLK1)

Prepared: 04/30/23 Analyzed: 05/04/23

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

LCS (BGD0999-BS1)

Prepared: 04/30/23 Analyzed: 05/04/23

Calcium	5.22	0.0500	mg/L wet	5.00	104	70-130
Magnesium	5.17	0.0500	"	5.00	103	70-130
Sodium	5.15	0.0500	"	5.00	103	70-130

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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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

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

Batch BGD0845 - General Preparation

Duplicate (BGD0845-DUP1)		Source: 2304496-01		Prepared: 04/25/23 Analyzed: 04/27/23						
% Solids	87.0		%		88.0			1.13	20	

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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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

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

Batch BGE0018 - General Preparation

Blank (BGE0018-BLK1)

Prepared & Analyzed: 05/01/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGE0018-BS1)

Prepared & Analyzed: 05/01/23

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

Duplicate (BGE0018-DUP1)

Source: 2304508-01

Prepared & Analyzed: 05/01/23

Specific Conductance (EC) 0.171 0.0100 mmhos/cm 0.172 0.582 20

Summit Scientific

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Fremont Environmental
PO Box 1289
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Project: Noble - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/24/23 12:34

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

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

Batch BGE0019 - General Preparation

LCS (BGE0019-BS1)

Prepared & Analyzed: 05/01/23

pH	9.02	pH Units	9.18	98.3	95-105
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Duplicate (BGE0019-DUP1)

Source: 2304508-01

Prepared & Analyzed: 05/01/23

pH	7.74	pH Units	7.75	0.129	20
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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 - State 64N64W 36NESE

Project Number: [none]
Project Manager: Paul Henehan

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Notes and Definitions

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.
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