

**TABLE 1**  
**SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA**  
**NOBLE ENERGY INC.**  
**ORR USX A03-15D TANK, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C023-193**

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4- Trimethyl- Benzene (mg/kg)	1,3,5- Trimethyl- Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500**		
AST01 0.5 feet	07/18/2023	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST02 0.5 feet	07/18/2023	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST03 0.5 feet	07/18/2023	0.5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWV01 FLOOR 5 feet	07/18/2023	5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWV02 N 3 feet	07/18/2023	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SEP01 DL 3 feet	07/18/2023	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SEP02 DL 3 feet	07/18/2023	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the ECMC Table 915-1 concentrations

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

\* Indicates laboratory minimum detection limit in excess of SSL

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

NA - Not analyzed

TABLE 2  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
ORR USX A03-15D TANK, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C023-193

Sample ID	Sample Date	Depth (ft)	Acenaphthen e (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthen e (mg/kg)	Benzo (k) Fluoranthen e (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthen e (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3- cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
AST01 0.5 feet	07/18/2023	0.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST02 0.5 feet	07/18/2023	0.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST03 0.5 feet	07/18/2023	0.5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWV01 FLOOR 5 feet	07/18/2023	5'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWV02 N 3 feet	07/18/2023	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01 DL 3 feet	07/18/2023	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP02 DL 3 feet	07/18/2023	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Bold faced values exceed the ECMC Table 915-1 concentrations  
Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)  
\* Indicates laboratory minimum detection limit in excess of SSL  
NA - Not analyzed

TABLE 3  
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION  
NOBLE ENERGY INC.  
ORR USX A03-15D TANK, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C023-193

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
COGCC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
AST01 0.5 feet	07/18/2023	0.5'	8.22	0.0663	0.548	0.0644
AST02 0.5 feet	07/18/2023	0.5'	<b>8.73</b>	0.100	0.696	0.0466
AST03 0.5 feet	07/18/2023	0.5'	<b>8.41</b>	0.0945	0.964	0.0276
PWV01 FLOOR 5 feet	07/18/2023	5'	8.15	0.509	1.81	0.526
PWV02 N 3 feet	07/18/2023	3'	7.63	0.516	0.676	1.41
SEP01 DL 3 feet	07/18/2023	3'	7.92	0.308	0.417	0.433
SEP02 DL 3 feet	07/18/2023	3'	7.76	0.308	0.117	0.326

Bold faced values exceed the ECMC Table 915-1 concentrations

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

NA - Not analyzed

TABLE 4  
SUMMARY OF METALS IN SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
ORR USX A03-15D TANK, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C023-193

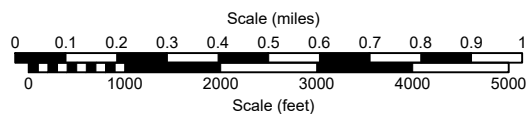
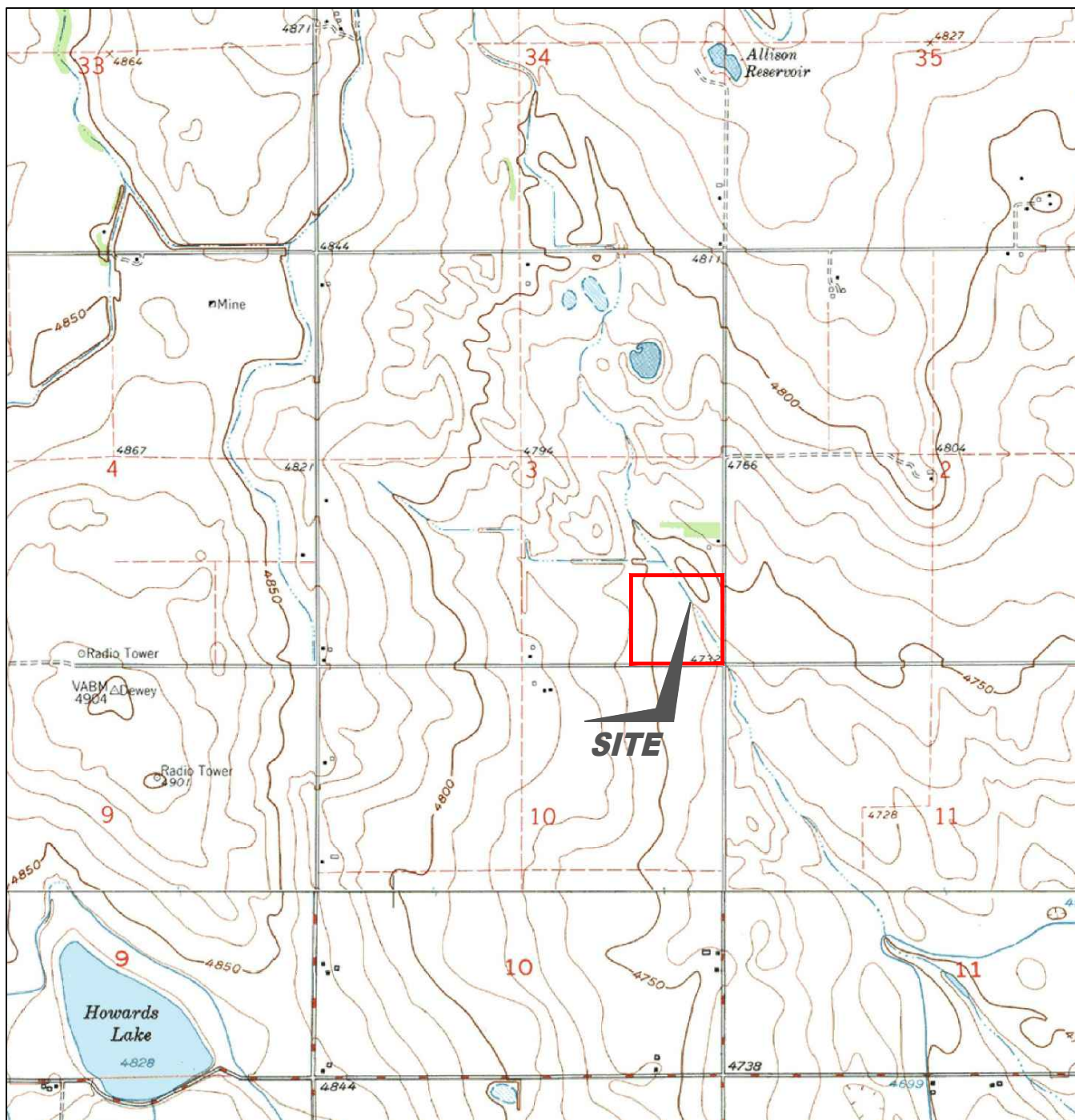
Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
AST01 0.5 feet	07/18/2023	0.5'	<b>2.11</b>	6.95	<0.200	<0.30	2.68	2.84	1.64	<0.265	<0.0200	4.96
AST02 0.5 feet	07/18/2023	0.5'	<b>0.824</b>	3.31	<0.200	<0.30	1.42	0.814	1.51	<0.261	<0.0200	3.56
AST03 0.5 feet	07/18/2023	0.5'	<b>1.28</b>	6.84	0.282	<0.30	1.04	1.66	0.577	<0.262	<0.0200	2.30
PWV01 FLOOR 5 feet	07/18/2023	5'	<b>1.72</b>	55.3	<0.200	<0.30	4.21	4.64	3.80	0.224	0.0215	15.8
PWV02 N 3 feet	07/18/2023	3'	<b>2.23</b>	59.9	0.276	<0.30	5.60	6.66	4.48	<b>0.328</b>	0.0302	20.00
SEP01 DL 3 feet	07/18/2023	3'	<b>1.44</b>	31.8	<0.200	<0.30	3.32	3.62	2.61	<0.288	<0.0200	10.8
SEP02 DL 3 feet	07/18/2023	3'	<b>1.84</b>	33.5	<0.200	<0.30	3.62	4.76	2.95	0.235	<0.0200	12.2

Bold faced values exceed the ECMC Table 915-1 concentrations

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

\* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

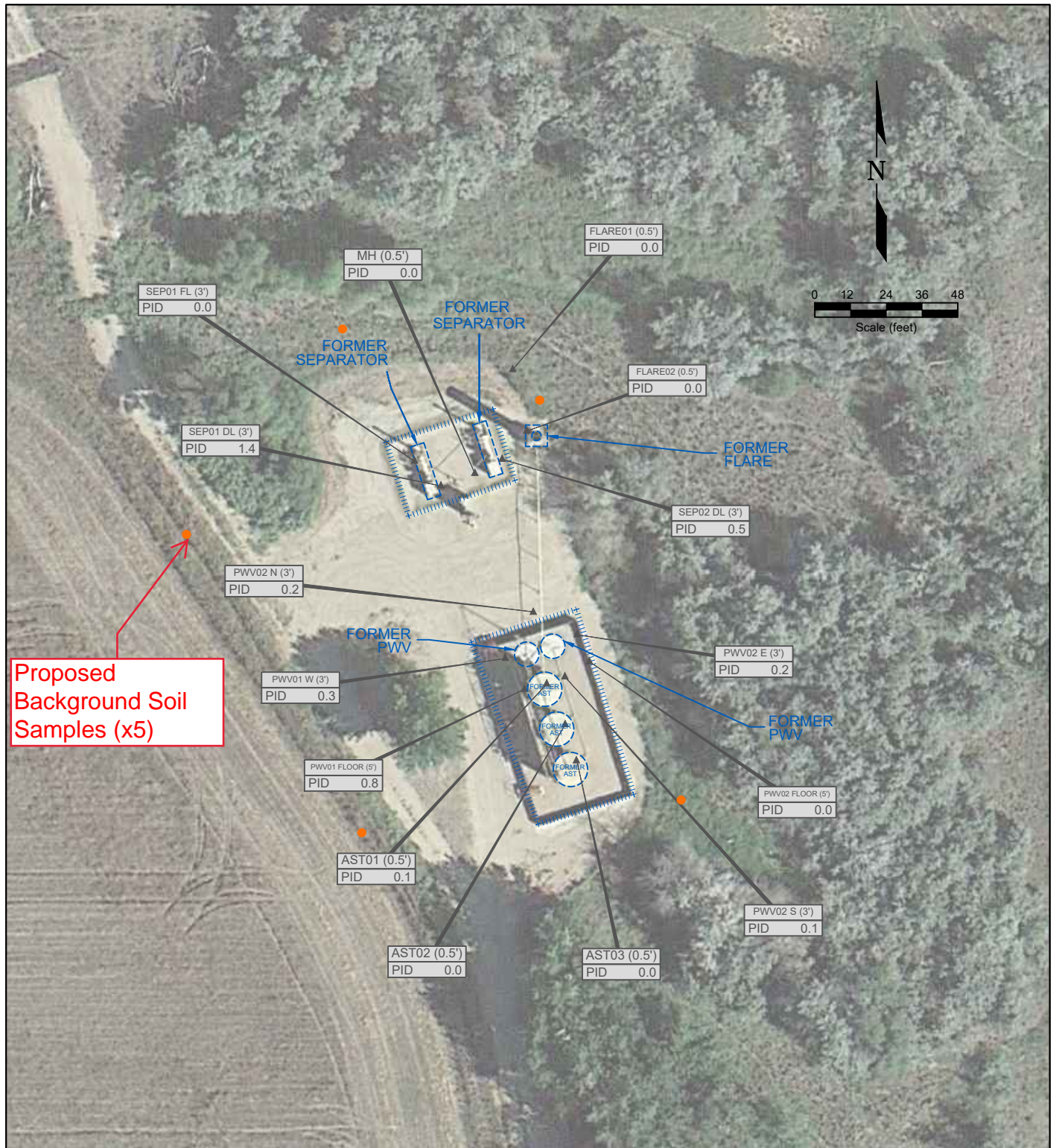
Figure 1  
**SITE LOCATION MAP**

**NOBLE ENERGY INC - Orr USX A03-15D Tank**  
SESE Sec. 3, T6N, R64W, 6th PM  
Weld County, Colorado  
40.511385°, -104.530303°

Project # <b>CO23-193</b>	API #	Facility # <b>424439</b>
Date <b>10/24/2023</b>	Remediation # <b>28924</b>	Filename <b>23193T</b>








#### LEGEND

- WELLHEAD LOCATION
- ▲ PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FORMER FACILITY
- FLOW LINE
- CONTAINMENT BERM
- FENCE LINE

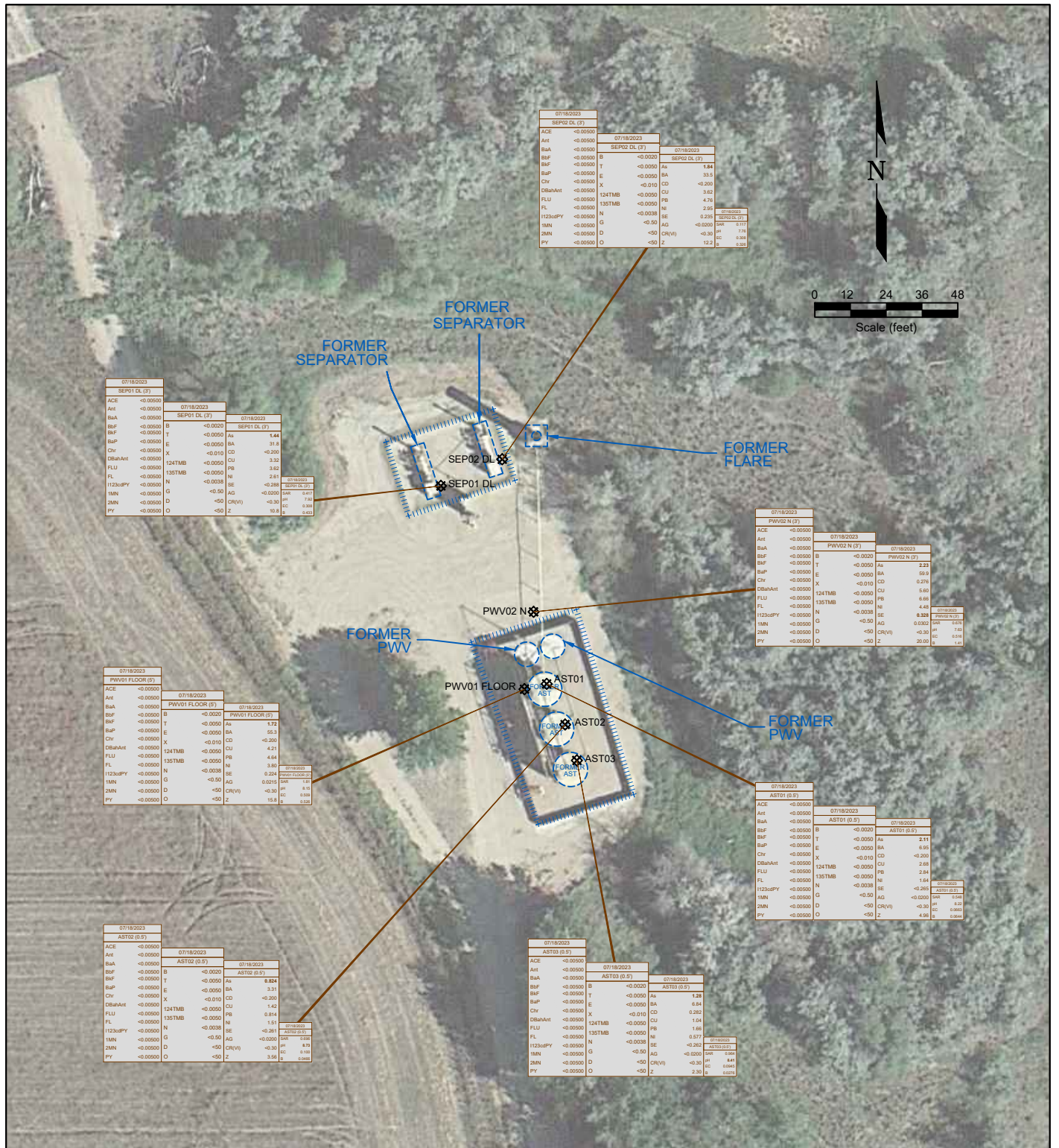
FL01 PID READING LOCATION IDENTIFICATION  
PID 0.1 PHOTO IONIZATION DETECTION (ppm)

Figure 2  
SITE MAP

**NOBLE ENERGY INC - Orr USX A03-15D Tank**  
SESE Sec. 3, T6N, R64W, 6th PM  
Weld County, Colorado  
40.511385°, -104.530303°

Project # <b>CO23-193</b>	API #	Facility # <b>424439</b>	
Date <b>10/24/2023</b>	Remediation # <b>28924</b>	Filename <b>23193Q</b>	





LEGEND			
● WELLHEAD LOCATION	○ ABOVE GROUND STORAGE TANK	FORMER FACILITY	FLOW LINE
● SOIL SAMPLE LOCATION			CONTAINMENT BERM
			FENCE LINE

DATE SAMPLED	SAMPLE ID & DEPTH (ft)	DATE SAMPLED	SAMPLE ID & DEPTH (ft)	DATE SAMPLED	SAMPLE ID & DEPTH (ft)
4/7/2023	FL01 (4')	4/7/2023	FL01 (4')	4/7/2023	FL01 (4')
ACE	<0.0000	ACE	<0.0000	ACE	<0.0000
Ant	<0.0000	Ant	<0.0000	Ant	<0.0000
BaA	<0.0000	BaA	<0.0000	BaA	<0.0000
BbF	<0.0000	BbF	<0.0000	BbF	<0.0000
BkF	<0.0000	BkF	<0.0000	BkF	<0.0000
Chv	<0.0000	Chv	<0.0000	Chv	<0.0000
DBAht	<0.0000	DBAht	<0.0000	DBAht	<0.0000
FLU	<0.0000	FLU	<0.0000	FLU	<0.0000
123uDPY	<0.0000	123uDPY	<0.0000	123uDPY	<0.0000
1MN	<0.0000	1MN	<0.0000	1MN	<0.0000
2MN	<0.0000	2MN	<0.0000	2MN	<0.0000
PY	<0.0000	PY	<0.0000	PY	<0.0000

DATE SAMPLED	SAMPLE ID & DEPTH (ft)	DATE SAMPLED	SAMPLE ID & DEPTH (ft)	DATE SAMPLED	SAMPLE ID & DEPTH (ft)
4/7/2023	FL01 (4')	4/7/2023	FL01 (4')	4/7/2023	FL01 (4')
ACE	<0.0000	ACE	<0.0000	ACE	<0.0000
Ant	<0.0000	Ant	<0.0000	Ant	<0.0000
BaA	<0.0000	BaA	<0.0000	BaA	<0.0000
BbF	<0.0000	BbF	<0.0000	BbF	<0.0000
BkF	<0.0000	BkF	<0.0000	BkF	<0.0000
Chv	<0.0000	Chv	<0.0000	Chv	<0.0000
DBAht	<0.0000	DBAht	<0.0000	DBAht	<0.0000
FLU	<0.0000	FLU	<0.0000	FLU	<0.0000
123uDPY	<0.0000	123uDPY	<0.0000	123uDPY	<0.0000
1MN	<0.0000	1MN	<0.0000	1MN	<0.0000
2MN	<0.0000	2MN	<0.0000	2MN	<0.0000
PY	<0.0000	PY	<0.0000	PY	<0.0000

DATE SAMPLED	SAMPLE ID & DEPTH (ft)	DATE SAMPLED	SAMPLE ID & DEPTH (ft)	DATE SAMPLED	SAMPLE ID & DEPTH (ft)
4/7/2023	FL01 (4')	4/7/2023	FL01 (4')	4/7/2023	FL01 (4')
ACE	<0.0000	ACE	<0.0000	ACE	<0.0000
Ant	<0.0000	Ant	<0.0000	Ant	<0.0000
BaA	<0.0000	BaA	<0.0000	BaA	<0.0000
BbF	<0.0000	BbF	<0.0000	BbF	<0.0000
BkF	<0.0000	BkF	<0.0000	BkF	<0.0000
Chv	<0.0000	Chv	<0.0000	Chv	<0.0000
DBAht	<0.0000	DBAht	<0.0000	DBAht	<0.0000
FLU	<0.0000	FLU	<0.0000	FLU	<0.0000
123uDPY	<0.0000	123uDPY	<0.0000	123uDPY	<0.0000
1MN	<0.0000	1MN	<0.0000	1MN	<0.0000
2MN	<0.0000	2MN	<0.0000	2MN	<0.0000
PY	<0.0000	PY	<0.0000	PY	<0.0000

Figure 3

**SOIL CHEMISTRY MAP**

**NOBLE ENERGY INC - Orr USX A03-15D Tank**

SESE Sec. 3, T6N, R64W, 6th PM

Weld County, Colorado

40.511385°, -104.530303°

Project #	API #	Facility #
CO23-193		424439
Date	Remediation #	Filename
10/24/2023	28924	23193Q

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 17, 2023

Paul Henchan

Fremont Environmental

PO Box 1289

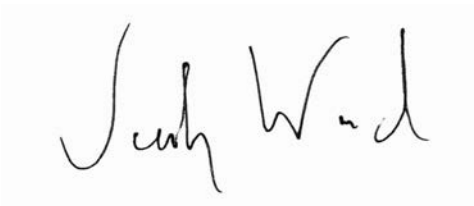
Wellington, CO 80549

RE: Noble - Orr USX A03-15D Tank

Work Order #2307352

Enclosed are the results of analyses for samples received by Summit Scientific on 07/19/23 15:46. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01 0.5 feet	2307352-01	Soil	07/18/23 13:11	07/19/23 15:46
AST02 0.5 feet	2307352-02	Soil	07/18/23 13:17	07/19/23 15:46
AST03 0.5 feet	2307352-03	Soil	07/18/23 13:19	07/19/23 15:46
PWV01 FLOOR 5 feet	2307352-04	Soil	07/18/23 15:14	07/19/23 15:46
PWV02 N 3 feet	2307352-05	Soil	07/18/23 15:10	07/19/23 15:46
SEP01 DL 3 feet	2307352-06	Soil	07/18/23 13:49	07/19/23 15:46
SEP02 DL 3 feet	2307352-07	Soil	07/18/23 13:42	07/19/23 15:46

Summit Scientific

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



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

Lab ID	Page 1 of 1
2307352	

Send Data To:		Send Invoice To:	
Client: Fremont Environmental	Project Manager: Paul Henehan	Company: Noble	
Address:	E-Mail: Fremont Distribution List	Project Name/Location: ORR USX A03-15D Tank	
City/State/Zip:		AFE#:	
Phone: 303-261-6246	Project Name: ORR USX A03-15D Tank	PO/Billing Codes: UWRWE-A2568-ABN	
Sampler Name: Stanley Gilbert	Project Number:	Contact: Mike Montoya	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil			BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD	
1	AST01 0.5 feet	7/18/23	13:11	2			X			X			X	X	X	X	X			
2	AST02 0.5 feet		13:17																	
3	AST03 0.5 feet		13:19																	
4	PW01 FLOOR 5 feet		15:14																	
5	PW02 N 3 feet		15:10																	
6	SEPO1 DL 3 feet		13:49																	
7	SEPO2 DL 3 feet		13:42																	
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by:	Date/Time: 7/19/23 15:46	Received by: Summit North	Date/Time: 7/19/23 15:46	TAT Business Days	Field DO	Notes:
Relinquished by: 52	Date/Time: 7/19/23 15:46	Received by:	Date/Time: 7/19/23 15:46	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 14.1	Corrected Temperature:	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2307352Client: EvermontClient Project ID: ORR USX A03-150 Tank Data HayShipped Via: H.D./P.U./FedEx/UPS/USPS/Other

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

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

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

14.1

Thermometer #

1

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

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

Custodian Printed Name

7/19/23

Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank

Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST01 0.5 feet**  
**2307352-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/22/23	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: **07/18/23 13:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0392	97.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.4	91.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST01 0.5 feet**  
**2307352-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0227	68.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0228	68.3 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0644</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 13:11**

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST01 0.5 feet**  
**2307352-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.11	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B
Barium	6.95	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.68	0.400	"	"	"	"	"	"
Lead	2.84	0.200	"	"	"	"	"	"
Nickel	1.64	0.400	"	"	"	"	"	"
Selenium	ND	0.265	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	4.96	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4.81	0.0510	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	3.21	0.0510	"	"	"	"	"	"	
Sodium	6.33	0.0510	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.548	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST01 0.5 feet**  
**2307352-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.1		%	1	BGG0629	07/20/23	07/21/23	Calculation	

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

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0663	0.0100	mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

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

Date Sampled: **07/18/23 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.22		pH Units	1	BGG0662	07/21/23	07/21/23	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST02 0.5 feet**  
**2307352-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/22/23	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: **07/18/23 13:17**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0394	98.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0436	109 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.6	92.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST02 0.5 feet**  
**2307352-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0219	65.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0210	62.9 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0466</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 13:17**

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

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST02 0.5 feet**  
**2307352-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.824	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B
Barium	3.31	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.42	0.400	"	"	"	"	"	"
Lead	0.814	0.200	"	"	"	"	"	"
Nickel	1.51	0.400	"	"	"	"	"	"
Selenium	ND	0.261	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	3.56	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	5.96	0.0503	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	2.82	0.0503	"	"	"	"	"	"	
Sodium	8.23	0.0503	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.696	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST02 0.5 feet**  
**2307352-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	99.5			%	1	BGG0629	07/20/23	07/21/23	Calculation	

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

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.100	0.0100		mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST02 0.5 feet**  
**2307352-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.73</b>			pH Units	1	BGH0106	07/21/23	08/02/23	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST03 0.5 feet**  
**2307352-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/22/23	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: **07/18/23 13:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.5	92.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST03 0.5 feet**  
**2307352-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0218	65.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0215	64.6 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0276</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 13:19**

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST03 0.5 feet**  
**2307352-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.28	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B
Barium	6.84	0.400	"	"	"	"	"	"
Cadmium	0.282	0.200	"	"	"	"	"	"
Copper	1.04	0.400	"	"	"	"	"	"
Lead	1.66	0.200	"	"	"	"	"	"
Nickel	0.577	0.400	"	"	"	"	"	"
Selenium	ND	0.262	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	2.30	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4.79	0.0504	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	2.24	0.0504	"	"	"	"	"	"	
Sodium	10.2	0.0504	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.964	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST03 0.5 feet**  
**2307352-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	99.2			%	1	BGG0629	07/20/23	07/21/23	Calculation	

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

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0945	0.0100		mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**AST03 0.5 feet**  
**2307352-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.41</b>			pH Units	1	BGH0106	07/21/23	08/02/23	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV01 FLOOR 5 feet  
2307352-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/22/23	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: **07/18/23 15:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0392	97.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0432	108 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.3	90.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV01 FLOOR 5 feet**  
**2307352-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0193	58.0 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.526</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 15:14**

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

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV01 FLOOR 5 feet  
2307352-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.72	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B
Barium	55.3	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.21	0.400	"	"	"	"	"	"
Lead	4.64	0.200	"	"	"	"	"	"
Nickel	3.80	0.400	"	"	"	"	"	"
Selenium	0.224	0.318	"	"	"	"	"	"
Silver	0.0215	0.0200	"	"	"	"	"	"
Zinc	15.8	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	41.9	0.0611	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	23.8	0.0611	"	"	"	"	"	"	
Sodium	59.3	0.0611	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.81	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

Date Sampled: **07/18/23 15:14**

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV01 FLOOR 5 feet  
2307352-04 (Soil)**

**Summit Scientific**

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

% Solids	81.8	%	1	BGG0629	07/20/23	07/21/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.509	0.0100	mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

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

Date Sampled: **07/18/23 15:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.15		pH Units	1	BGG0662	07/21/23	07/21/23	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV02 N 3 feet**  
**2307352-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/23/23	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: **07/18/23 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0381	95.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0431	108 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.3	90.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV02 N 3 feet**  
**2307352-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0159	47.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0137	41.2 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>1.41</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 15:10**

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

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV02 N 3 feet  
2307352-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.23	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B	
Barium	59.9	0.400	"	"	"	"	"	"	
Cadmium	0.276	0.200	"	"	"	"	"	"	
Copper	5.60	0.400	"	"	"	"	"	"	
Lead	6.66	0.200	"	"	"	"	"	"	
Nickel	4.48	0.400	"	"	"	"	"	"	
Selenium	0.328	0.307	"	"	"	"	"	"	
Silver	0.0302	0.0200	"	"	"	"	"	"	
Zinc	20.0	0.400	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 07/18/23 15:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: 07/18/23 15:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	28.0	0.0590	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	24.5	0.0590	"	"	"	"	"	"	
Sodium	20.3	0.0590	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 07/18/23 15:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.676	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

Date Sampled: 07/18/23 15:10

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

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**PWV02 N 3 feet**  
**2307352-05 (Soil)**

**Summit Scientific**

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

% Solids	84.8	%	1	BGG0629	07/20/23	07/21/23	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.516	0.0100	mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

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

Date Sampled: **07/18/23 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.63		pH Units	1	BGG0662	07/21/23	07/21/23	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP01 DL 3 feet**  
**2307352-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/23/23	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: **07/18/23 13:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.0	88.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP01 DL 3 feet**  
**2307352-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0245	73.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0203	60.9 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.433</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 13:49**

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

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP01 DL 3 feet**  
**2307352-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.44	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B
Barium	31.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.32	0.400	"	"	"	"	"	"
Lead	3.62	0.200	"	"	"	"	"	"
Nickel	2.61	0.400	"	"	"	"	"	"
Selenium	ND	0.288	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	10.8	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	23.8	0.0553	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	11.3	0.0553	"	"	"	"	"	"	
Sodium	9.87	0.0553	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.417	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP01 DL 3 feet**  
**2307352-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>90.4</b>		%	1	BGG0629	07/20/23	07/21/23	Calculation	

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

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.308</b>	0.0100	mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

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

Date Sampled: **07/18/23 13:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>7.92</b>		pH Units	1	BGG0662	07/21/23	07/21/23	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP02 DL 3 feet**  
**2307352-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGG0610	07/20/23	07/23/23	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: **07/18/23 13:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0386	96.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0432	108 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGG0614	07/20/23	07/21/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.8	86.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP02 DL 3 feet**  
**2307352-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGG0644	07/20/23	07/21/23	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: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0204	61.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0178	53.3 %	40-150		"	"	"	"	

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

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.326</b>	0.0100	mg/L	1	BGG0641	07/20/23	07/27/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **07/18/23 13:42**

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

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP02 DL 3 feet**  
**2307352-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.84	0.200	mg/kg dry	1	BGG0602	07/20/23	07/27/23	EPA 6020B
Barium	33.5	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.62	0.400	"	"	"	"	"	"
Lead	4.76	0.200	"	"	"	"	"	"
Nickel	2.95	0.400	"	"	"	"	"	"
Selenium	0.235	0.301	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.2	0.400	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGG0748	07/24/23	07/24/23	EPA 7196A	

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

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	19.3	0.0580	mg/L dry	1	BGG0623	07/20/23	07/22/23	EPA 6020B	
Magnesium	12.3	0.0580	"	"	"	"	"	"	
Sodium	2.67	0.0580	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.117	0.00100	units	1	BGG0744	07/24/23	07/24/23	Calculation	

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

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**SEP02 DL 3 feet**  
**2307352-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.3		%	1	BGG0629	07/20/23	07/21/23	Calculation	

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

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.308	0.0100	mmhos/cm	1	BGG0663	07/21/23	07/21/23	EPA 120.1	

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

Date Sampled: **07/18/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.76		pH Units	1	BGG0662	07/21/23	07/21/23	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

## 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 BGG0610 - EPA 5030 Soil MS

##### Blank (BGG0610-BLK1)

Prepared: 07/20/23 Analyzed: 07/22/23

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	0.0365		"	0.0400		91.4	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0413		"	0.0400		103	50-150			

##### LCS (BGG0610-BS1)

Prepared: 07/20/23 Analyzed: 07/22/23

Benzene	0.114	0.0020	mg/kg	0.100		114	70-130			
Toluene	0.124	0.0050	"	0.100		124	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.219	0.010	"	0.200		110	70-130			
o-Xylene	0.108	0.0050	"	0.100		108	70-130			
1,2,4-Trimethylbenzene	0.113	0.0050	"	0.100		113	70-130			
1,3,5-Trimethylbenzene	0.116	0.0050	"	0.100		116	70-130			
Naphthalene	0.102	0.0038	"	0.100		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0357		"	0.0400		89.2	50-150			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	50-150			

##### Matrix Spike (BGG0610-MS1)

Source: 2307335-01

Prepared: 07/20/23 Analyzed: 07/22/23

Benzene	0.113	0.0020	mg/kg	0.100	ND	113	70-130			
Toluene	0.123	0.0050	"	0.100	ND	123	70-130			
Ethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130			
m,p-Xylene	0.216	0.010	"	0.200	ND	108	70-130			
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130			
1,2,4-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130			
1,3,5-Trimethylbenzene	0.116	0.0050	"	0.100	ND	116	70-130			
Naphthalene	0.108	0.0038	"	0.100	ND	108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0364		"	0.0400		91.0	50-150			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

## 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 BGG0610 - EPA 5030 Soil MS

Matrix Spike Dup (BGG0610-MSD1)	Source: 2307335-01			Prepared: 07/20/23 Analyzed: 07/22/23						
Benzene	0.113	0.0020	mg/kg	0.100	ND	113	70-130	0.345	30	
Toluene	0.122	0.0050	"	0.100	ND	122	70-130	0.808	30	
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	1.43	30	
m,p-Xylene	0.217	0.010	"	0.200	ND	108	70-130	0.486	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	0.0279	30	
1,2,4-Trimethylbenzene	0.114	0.0050	"	0.100	ND	114	70-130	1.49	30	
1,3,5-Trimethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130	0.260	30	
Naphthalene	0.113	0.0038	"	0.100	ND	113	70-130	4.69	30	
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0400		92.8	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	50-150			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**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 BGG0614 - EPA 3550A**

**Blank (BGG0614-BLK1)**

Prepared: 07/20/23 Analyzed: 07/21/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	12.0		"	12.5		96.0	30-150			

**LCS (BGG0614-BS1)**

Prepared: 07/20/23 Analyzed: 07/21/23

C10-C28 (DRO)	455	50	mg/kg	500		91.0	70-130			
Surrogate: o-Terphenyl	11.4		"	12.5		91.5	30-150			

**Matrix Spike (BGG0614-MS1)**

Source: 2307335-01

Prepared: 07/20/23 Analyzed: 07/21/23

C10-C28 (DRO)	452	50	mg/kg	500	7.31	89.0	70-130			
Surrogate: o-Terphenyl	11.5		"	12.5		92.4	30-150			

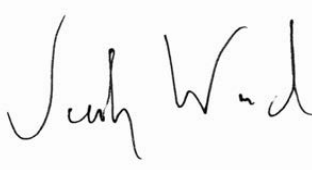
**Matrix Spike Dup (BGG0614-MSD1)**

Source: 2307335-01

Prepared: 07/20/23 Analyzed: 07/21/23

C10-C28 (DRO)	455	50	mg/kg	500	7.31	89.6	70-130	0.656	20	
Surrogate: o-Terphenyl	11.3		"	12.5		90.7	30-150			

Summit Scientific



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Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

### 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 BGG0644 - EPA 5030 Soil MS

##### Blank (BGG0644-BLK1)

Prepared: 07/20/23 Analyzed: 07/21/23

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	0.0257		"	0.0333		77.2	40-150			
Surrogate: Fluoranthene-d10	0.0223		"	0.0333		66.9	40-150			

##### LCS (BGG0644-BS1)

Prepared: 07/20/23 Analyzed: 07/21/23

Acenaphthene	0.0320	0.00500	mg/kg	0.0333	96.0	31-137
Anthracene	0.0315	0.00500	"	0.0333	94.5	30-120
Benzo (a) anthracene	0.0349	0.00500	"	0.0333	105	30-120
Benzo (a) pyrene	0.0319	0.00500	"	0.0333	95.6	30-120
Benzo (b) fluoranthene	0.0336	0.00500	"	0.0333	101	30-120
Benzo (k) fluoranthene	0.0322	0.00500	"	0.0333	96.6	30-120
Chrysene	0.0329	0.00500	"	0.0333	98.6	30-120
Dibenz (a,h) anthracene	0.0303	0.00500	"	0.0333	90.9	30-120
Fluoranthene	0.0318	0.00500	"	0.0333	95.4	30-120
Fluorene	0.0321	0.00500	"	0.0333	96.3	30-120
Indeno (1,2,3-cd) pyrene	0.0237	0.00500	"	0.0333	71.0	30-120
Pyrene	0.0352	0.00500	"	0.0333	106	35-142
1-Methylnaphthalene	0.0316	0.00500	"	0.0333	94.8	35-142
2-Methylnaphthalene	0.0339	0.00500	"	0.0333	102	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0268		"	0.0333	80.4	40-150
Surrogate: Fluoranthene-d10	0.0327		"	0.0333	98.0	40-150

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

### 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 BGG0644 - EPA 5030 Soil MS

Matrix Spike (BGG0644-MS1)			Source: 2307333-01		Prepared: 07/20/23		Analyzed: 07/21/23			
Acenaphthene	0.0328	0.00500	mg/kg	0.0333	ND	98.3	31-137			
Anthracene	0.0209	0.00500	"	0.0333	ND	62.6	30-120			
Benzo (a) anthracene	0.0201	0.00500	"	0.0333	ND	60.4	30-120			
Benzo (a) pyrene	0.0192	0.00500	"	0.0333	ND	57.7	30-120			
Benzo (b) fluoranthene	0.0209	0.00500	"	0.0333	ND	62.7	30-120			
Benzo (k) fluoranthene	0.0209	0.00500	"	0.0333	ND	62.8	30-120			
Chrysene	0.0234	0.00500	"	0.0333	ND	70.1	30-120			
Dibenz (a,h) anthracene	0.0188	0.00500	"	0.0333	ND	56.4	30-120			
Fluoranthene	0.0261	0.00500	"	0.0333	ND	78.3	30-120			
Fluorene	0.0340	0.00500	"	0.0333	ND	102	30-120			
Indeno (1,2,3-cd) pyrene	0.0134	0.00500	"	0.0333	ND	40.2	30-120			
Pyrene	0.0230	0.00500	"	0.0333	ND	68.9	35-142			
1-Methylnaphthalene	0.0435	0.00500	"	0.0333	0.0132	90.9	15-130			
2-Methylnaphthalene	0.0368	0.00500	"	0.0333	ND	110	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0211		"	0.0333		63.4	40-150			
Surrogate: Fluoranthene-d10	0.0231		"	0.0333		69.3	40-150			

Matrix Spike Dup (BGG0644-MSD1)			Source: 2307333-01		Prepared: 07/20/23		Analyzed: 07/21/23			
Acenaphthene	0.0180	0.00500	mg/kg	0.0333	ND	54.1	31-137	58.0	30	QR-02
Anthracene	0.0149	0.00500	"	0.0333	ND	44.7	30-120	33.5	30	QR-02
Benzo (a) anthracene	0.0165	0.00500	"	0.0333	ND	49.4	30-120	20.1	30	
Benzo (a) pyrene	0.0139	0.00500	"	0.0333	ND	41.7	30-120	32.2	30	QR-02
Benzo (b) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.7	30-120	19.2	30	
Benzo (k) fluoranthene	0.0167	0.00500	"	0.0333	ND	50.0	30-120	22.6	30	
Chrysene	0.0181	0.00500	"	0.0333	ND	54.4	30-120	25.2	30	
Dibenz (a,h) anthracene	0.0153	0.00500	"	0.0333	ND	45.9	30-120	20.5	30	
Fluoranthene	0.0171	0.00500	"	0.0333	ND	51.4	30-120	41.6	30	QR-02
Fluorene	0.0223	0.00500	"	0.0333	ND	66.9	30-120	41.5	30	QR-02
Indeno (1,2,3-cd) pyrene	0.0157	0.00500	"	0.0333	ND	47.2	30-120	16.2	30	
Pyrene	0.0199	0.00500	"	0.0333	ND	59.8	35-142	14.2	30	
1-Methylnaphthalene	0.0259	0.00500	"	0.0333	0.0132	38.0	15-130	50.8	50	QR-02
2-Methylnaphthalene	0.0192	0.00500	"	0.0333	ND	57.5	15-130	63.1	50	QR-02
Surrogate: 2-Methylnaphthalene-d10	0.0150		"	0.0333		45.1	40-150			
Surrogate: Fluoranthene-d10	0.0141		"	0.0333		42.2	40-150			

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**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 BGG0641 - EPA 3050B**

**Blank (BGG0641-BLK1)**

Prepared: 07/20/23 Analyzed: 07/27/23

Boron ND 0.0100 mg/L

**LCS (BGG0641-BS1)**

Prepared: 07/20/23 Analyzed: 07/27/23

Boron 5.54 0.0100 mg/L 5.00 111 80-120

**Duplicate (BGG0641-DUP1)**

**Source: 2307335-03**

Prepared: 07/20/23 Analyzed: 07/27/23

Boron 0.534 0.0100 mg/L 0.526 1.66 20

**Matrix Spike (BGG0641-MS1)**

**Source: 2307335-03**

Prepared: 07/20/23 Analyzed: 07/27/23

Boron 5.79 0.0100 mg/L 5.00 0.526 105 75-125

**Matrix Spike Dup (BGG0641-MSD1)**

**Source: 2307335-03**

Prepared: 07/20/23 Analyzed: 07/27/23

Boron 5.88 0.0100 mg/L 5.00 0.526 107 75-125 1.60 25

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

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

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

**Batch BGG0602 - EPA 3050B**

**Blank (BGG0602-BLK1)**

Prepared: 07/20/23 Analyzed: 07/27/23

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 (BGG0602-BS1)**

Prepared: 07/20/23 Analyzed: 07/27/23

Arsenic	38.3	0.200	mg/kg wet	40.0	95.8	80-120
Barium	42.1	0.400	"	40.0	105	80-120
Cadmium	1.76	0.200	"	2.00	87.8	80-120
Copper	38.2	0.400	"	40.0	95.6	80-120
Lead	22.2	0.200	"	20.0	111	80-120
Nickel	37.5	0.400	"	40.0	93.7	80-120
Selenium	3.54	0.260	"	4.00	88.6	80-120
Silver	1.75	0.0200	"	2.00	87.4	80-120
Zinc	37.5	0.400	"	40.0	93.8	80-120

**Duplicate (BGG0602-DUP1)**

Source: 2307326-64

Prepared: 07/20/23 Analyzed: 07/27/23

Arsenic	3.90	0.200	mg/kg dry	4.50	14.3	20
Barium	412	0.400	"	490	17.3	20
Cadmium	0.389	0.200	"	0.407	4.60	20
Copper	5.37	0.400	"	5.29	1.54	20
Lead	9.24	0.200	"	10.5	12.6	20
Nickel	4.95	0.400	"	5.13	3.66	20
Selenium	ND	0.340	"	ND		20
Silver	0.0550	0.0200	"	0.0508	7.92	20
Zinc	20.0	0.400	"	19.7	1.33	20

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Fremont Environmental  
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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**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 BGG0602 - EPA 3050B**

Matrix Spike (BGG0602-MS1)			Source: 2307326-64		Prepared: 07/20/23		Analyzed: 07/27/23			
Arsenic	43.1	0.200	mg/kg dry	52.4	4.50	73.7	75-125			QM-07
Barium	524	0.400	"	52.4	490	65.0	75-125			QM-07
Cadmium	2.65	0.200	"	2.62	0.407	85.5	75-125			
Copper	31.7	0.400	"	52.4	5.29	50.5	75-125			QM-07
Lead	32.0	0.200	"	26.2	10.5	82.0	75-125			
Nickel	31.4	0.400	"	52.4	5.13	50.2	75-125			QM-07
Selenium	4.45	0.340	"	5.24	ND	85.0	75-125			
Silver	2.23	0.0200	"	2.62	0.0508	83.2	75-125			
Zinc	49.2	0.400	"	52.4	19.7	56.2	75-125			QM-07

Matrix Spike Dup (BGG0602-MSD1)			Source: 2307326-64		Prepared: 07/20/23		Analyzed: 07/27/23			
Arsenic	43.3	0.200	mg/kg dry	52.4	4.50	74.2	75-125	0.610	25	QM-07
Barium	528	0.400	"	52.4	490	72.6	75-125	0.760	25	QM-07
Cadmium	2.69	0.200	"	2.62	0.407	87.2	75-125	1.65	25	
Copper	32.1	0.400	"	52.4	5.29	51.1	75-125	0.969	25	QM-07
Lead	32.4	0.200	"	26.2	10.5	83.6	75-125	1.30	25	
Nickel	31.7	0.400	"	52.4	5.13	50.8	75-125	0.915	25	QM-07
Selenium	4.59	0.340	"	5.24	ND	87.7	75-125	3.06	25	
Silver	2.26	0.0200	"	2.62	0.0508	84.4	75-125	1.42	25	
Zinc	49.2	0.400	"	52.4	19.7	56.3	75-125	0.0160	25	QM-07

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Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**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 BGG0748 - 3060A Mod**

**Blank (BGG0748-BLK1)**

Prepared & Analyzed: 07/24/23

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BGG0748-BS1)**

Prepared & Analyzed: 07/24/23

Chromium, Hexavalent 23.7 0.30 mg/kg wet 25.0 94.8 80-120

**Duplicate (BGG0748-DUP1)**

Source: 2307352-01

Prepared & Analyzed: 07/24/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BGG0748-MS1)**

Source: 2307352-01

Prepared & Analyzed: 07/24/23

Chromium, Hexavalent 23.0 0.30 mg/kg dry 25.5 ND 90.4 75-125

**Matrix Spike Dup (BGG0748-MSD1)**

Source: 2307352-01

Prepared & Analyzed: 07/24/23

Chromium, Hexavalent 28.0 0.30 mg/kg dry 25.5 ND 110 75-125 19.4 20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank

Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

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

**Summit Scientific**

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

**Batch BGG0623 - General Preparation**

**Blank (BGG0623-BLK1)**

Prepared: 07/20/23 Analyzed: 07/22/23

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

**LCS (BGG0623-BS1)**

Prepared: 07/20/23 Analyzed: 07/22/23

Calcium	4.76	0.0500	mg/L wet	5.00	95.1	70-130
Magnesium	6.05	0.0500	"	5.00	121	70-130
Sodium	6.30	0.0500	"	5.00	126	70-130

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank

Project Number: UWRWE-A2568-ABN

Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

### 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 BGG0629 - General Preparation

**Duplicate (BGG0629-DUP1)**

**Source: 2307352-01**

Prepared: 07/20/23 Analyzed: 07/21/23

% Solids	98.5	%	98.1	0.466	20
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Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank

Project Number: UWRWE-A2568-ABN

Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

**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 BGG0663 - General Preparation**

**Blank (BGG0663-BLK1)**

Prepared & Analyzed: 07/21/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGG0663-BS1)**

Prepared & Analyzed: 07/21/23

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

**Duplicate (BGG0663-DUP1)**

Source: 2307344-01

Prepared & Analyzed: 07/21/23

Specific Conductance (EC) 1.48 0.0100 mmhos/cm 1.48 0.00 20

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank  
Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

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

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

**Batch BGG0662 - General Preparation**

**LCS (BGG0662-BS1)**

Prepared & Analyzed: 07/21/23

pH	8.83		pH Units	9.18		96.2	95-105
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**Duplicate (BGG0662-DUP1)**

**Source: 2307344-01**

Prepared & Analyzed: 07/21/23

pH	8.19		pH Units		7.87		3.99	20
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**Batch BGH0106 - General Preparation**

**LCS (BGH0106-BS1)**

Prepared & Analyzed: 08/02/23

pH	9.23		pH Units	9.18		101	95-105
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**Duplicate (BGH0106-DUP1)**

**Source: 2306502-03**

Prepared & Analyzed: 08/02/23

pH	5.51		pH Units		5.53		0.362	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Orr USX A03-15D Tank

Project Number: UWRWE-A2568-ABN  
Project Manager: Paul Henchan

**Reported:**  
08/17/23 16:12

### Notes and Definitions

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