

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE 100322
ROUSE USX A05-19, WELD COUNTY, COLORADO
REM # 32929

Sample ID	Sample Date	Depth	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
FL01 3'	04/09/2024	3'	40.5186686	-104.57909	0.9	0.5
FL05 5'	04/09/2024	5'	40.5192131	-104.58168	1.0	2.5
BKG01	04/08/2024	0.5', 3', 5'	40.5197544	-104.58234	0.8	0.0
BKG02	04/08/2024	0.5', 3', 5'	40.5193910	-104.58250	0.8	0.0
BKG03	04/08/2024	0.5', 3', 5'	40.5190635	-104.58247	0.8	0.0
BKG04	04/09/2024	0.5', 3', 5'	40.5190878	-104.58166	0.8	0.0
BKG05	04/09/2024	0.5', 3', 5'	40.5162896	-104.58166	0.9	0.0
BKG06	04/09/2024	0.5', 3', 5'	40.5165652	-104.57569	0.8	0.0
BKG07	04/09/2024	0.5', 3', 5'	40.5185225	-104.57906	0.8	0.0
BKG08	04/09/2024	0.5', 3', 5'	40.5198988	-104.57596	1.0	0.0
BKG09	04/09/2024	0.5', 3', 5'	40.5199293	-104.58114	1.0	0.0

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

in. = Inches

ft. = Feet

bgs = Below ground surface

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE 100322
ROUSE USX A05-19, WELD COUNTY, COLORADO
REM # 32929

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 (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	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	500**		
FL01 3'	04/09/2024	3'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL05 5'	04/09/2024	5'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

1. Bold values exceed the ECMC Table 915-1 limit(s)
2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
3. * Indicates laboratory minimum detection limit in excess of SSL
4. ** Summation of GRO+DRO+ORO must be less than 500 mg/kg

NA - Not analyzed

= Source material characterization sample, excavated and transported off site for disposal.

= Material excavated and transported off site for disposal.

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE 100322
ROUSE UX# A05-19, WELD COUNTY, COLORADO
REM # 32929

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3- cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01 3'	04/09/2024	3'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL05 5'	04/09/2024	5'	0.0110	0.0194	0.0246	0.0110	0.0209	0.0105	0.0240	<0.00500	0.0681	0.0102	0.0191	0.0707	<0.00500	<0.00500

1. Bold values exceed the ECMC Table 915-1 limit(s)

2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

3. * Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

 = Source material characterization sample, excavated and transported off site for disposal.

 = Material excavated and transported off site for disposal.

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE 100322
ROUSE USX A05-19, WELD COUNTY, COLORADO
REM # 32929

Sample ID	Sample Date	Depth (ft)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01 3'	04/09/2024	3'	9.26	0.159	0.411	<2.00
FL05 5'	04/09/2024	5'	8.90	0.560	2.34	<2.00
BKG01 0.5'	04/08/2024	0.5'	8.42	0.0445	0.0615	<2.00
BKG01 3'	04/08/2024	3'	8.54	0.0471	0.0684	<2.00
BKG01 5'	04/08/2024	5'	8.81	1.46	5.28	<2.00
BKG02 0.5'	04/08/2024	0.5'	8.46	0.145	0.184	<2.00
BKG02 3'	04/08/2024	3'	9.11	0.492	3.38	<2.00
BKG02 5'	04/08/2024	5'	9.19	0.762	5.30	<2.00
BKG03 0.5'	04/08/2024	0.5'	8.48	0.312	0.543	<2.00
BKG03 3'	04/08/2024	3'	8.64	0.820	2.51	<2.00
BKG03 5'	04/08/2024	5'	9.35	0.457	3.28	<2.00
BKG04 0.5'	04/09/2024	0.5'	8.74	0.266	0.613	<2.00
BKG04 3'	04/09/2024	3'	9.07	0.149	0.405	<2.00
BKG04 5'	04/09/2024	5'	8.83	0.153	0.498	<2.00

Sample ID	Sample Date	Depth (ft)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
BKG05 0.5'	04/09/2024	0.5'	8.31	0.406	1.04	<2.00
BKG05 3'	04/09/2024	3'	8.90	0.236	0.598	<2.00
BKG05 5'	04/09/2024	5'	9.09	0.154	0.331	<2.00
BKG06 0.5'	04/09/2024	0.5'	8.23	0.526	1.29	<2.00
BKG06 3'	04/09/2024	3'	8.28	0.360	0.931	<2.00
BKG06 5'	04/09/2024	5'	9.19	0.454	3.03	<2.00
BKG07 0.5'	04/09/2024	0.5'	8.69	0.223	0.713	<2.00
BKG07 3'	04/09/2024	3'	8.93	0.218	0.708	<2.00
BKG07 5'	04/09/2024	5'	8.14	0.250	0.910	<2.00
BKG08 0.5'	04/09/2024	0.5'	8.90	0.275	0.643	<2.00
BKG08 3'	04/09/2024	3'	8.94	0.208	0.434	<2.00
BKG08 5'	04/09/2024	5'	9.15	0.488	2.85	<2.00
BKG09 0.5'	04/09/2024	0.5'	8.88	0.314	0.608	<2.00
BKG09 3'	04/09/2024	3'	8.78	0.237	0.560	<2.00
BKG09 5'	04/09/2024	5'	8.99	0.674	3.69	<2.00
Maximum Root Background Concentration (0 - 3 ft)			9.11	0.820	3.38	<2.00
Average Root Background Concentration (0 - 3 ft)			8.89	0.423	1.93	<2.00
Maximum Background Concentration			9.35	1.46	5.30	<2.00
Average Background Concentration			8.78	0.375	1.50	<2.00

1. Bold faced values exceed the ECMC Table 915-1 limit(s)

2. Blue highlighted soil analytical values indicate a regulatory exceedance

NA - Not analyzed

 = Source material characterization sample, excavated and transported off site for disposal.

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TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE 100322
ROUSE USX A05-19, WELD COUNTY, COLORADO
REM # 32929

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
FL01 3'	04/09/2024	3'	5.95	75.0	0.327	<0.30	15.3	13.7	10.3	<0.260	0.0418	24.8
FL05 5'	04/09/2024	5'	4.18	85.6	0.378	<0.30	6.72	7.47	6.78	<0.260	0.0304	27.6
BKG01 0.5'	04/08/2024	0.5'	3.54	72.5	0.225	<0.30	7.04	7.10	7.99	<0.260	0.0527	27.6
BKG01 3'	04/08/2024	3'	3.26	61.1	0.207	<0.30	6.00	6.35	7.24	<0.260	0.0408	24.0
BKG01 5'	04/08/2024	5'	3.48	59.2	<0.200	<0.30	4.42	4.44	5.62	<0.260	0.0304	18.0
BKG02 0.5'	04/08/2024	0.5'	4.05	66.0	0.254	<0.30	7.98	8.78	7.65	<0.260	0.043	32.8
BKG02 3'	04/08/2024	3'	2.30	34.8	<0.200	<0.30	3.08	3.78	3.95	<0.260	<0.0200	14.6
BKG02 5'	04/08/2024	5'	2.36	37.8	<0.200	<0.30	3.74	4.35	4.73	<0.260	<0.0200	17.2
BKG03 0.5'	04/08/2024	0.5'	4.48	69.1	0.290	<0.30	9.95	9.31	7.35	<0.260	0.0417	40.7
BKG03 3'	04/08/2024	3'	2.96	88.7	<0.200	<0.30	4.22	4.95	5.17	<0.260	0.0282	17.6
BKG03 5'	04/08/2024	5'	9.48	64.6	0.462	<0.30	9.43	4.40	12.1	<0.260	0.0228	26.8
BKG04 0.5'	04/09/2024	0.5'	3.83	75.7	0.333	<0.30	12.7	8.56	7.98	<0.260	0.0428	44.5
BKG04 3'	04/09/2024	3'	3.97	92.5	0.375	<0.30	10.1	9.46	9.20	<0.260	0.0500	39.3
BKG04 5'	04/09/2024	5'	4.85	85.7	0.371	<0.30	12.4	9.92	9.04	<0.260	0.0410	44.2

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
BKG05 0.5'	04/09/2024	0.5'	3.60	67.5	0.336	<0.30	11.5	8.97	7.24	<0.260	0.0412	41.7
BKG05 3'	04/09/2024	3'	3.47	110	0.328	<0.30	10.1	9.07	9.52	<0.260	0.0474	38.9
BKG05 5'	04/09/2024	5'	5.08	74.1	0.348	<0.30	6.95	5.04	7.51	<0.260	<0.0200	32.4
BKG06 0.5'	04/09/2024	0.5'	3.99	86.9	0.383	<0.30	17.1	10.0	9.25	0.266	0.0484	54.1
BKG06 3'	04/09/2024	3'	3.25	39.4	0.352	<0.30	14.7	10.7	15.3	<0.260	0.0436	54.3
BKG06 5'	04/09/2024	5'	3.79	88.0	0.229	<0.30	7.17	7.25	8.12	<0.260	0.051	28.0
BKG07 0.5'	04/09/2024	0.5'	3.37	69.0	0.317	<0.30	14.0	9.56	7.26	<0.260	0.0412	45.3
BKG07 3'	04/09/2024	3'	4.91	114	0.349	<0.30	10.1	9.82	11.4	<0.260	0.0596	42.1
BKG07 5'	04/09/2024	5'	6.98	73.9	0.462	<0.30	9.31	9.52	9.04	<0.260	0.039	28.2
BKG08 0.5'	04/09/2024	0.5'	2.78	47.7	0.293	<0.30	9.35	6.02	4.82	<0.260	0.0242	30.6
BKG08 3'	04/09/2024	3'	4.08	52.9	<0.200	<0.30	5.68	5.32	5.89	<0.260	0.0211	21.0
BKG08 5'	04/09/2024	5'	3.04	106	0.258	<0.30	5.92	6.57	7.77	<0.260	0.0381	26.8
BKG09 0.5'	04/09/2024	0.5'	3.77	49.9	0.241	<0.30	10.3	6.67	5.59	<0.260	0.0287	33.1
BKG09 3'	04/09/2024	3'	4.54	69.3	0.199	<0.30	6.38	6.11	7.45	<0.234	0.019	22.7
BKG09 5'	04/09/2024	5'	3.67	108	0.249	<0.30	6.64	6.17	8.08	<0.260	0.0336	28.3
Maximum Root Zone Background Concentration (0 - 3 ft)			4.91	114	0.383	<0.30	17.1	10.7	15.3	0.266	0.0596	54.3
125% Average Root Zone Background Concentration (0 - 3 ft)			5.24	94.4	0.403	<0.30	9.47	8.56	10.2	0.333	0.0471	36.4
Maximum Background Concentration			9.48	114	0.462	<0.30	17.1	10.7	15.3	0.266	0.0596	54.3
125% Average Background Concentration			5.04	90.9	0.390	<0.30	10.9	9.18	9.83	<0.260	0.0484	40.5

1. Bold values exceed the ECMC Table 915-1 limit(s)

2. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)

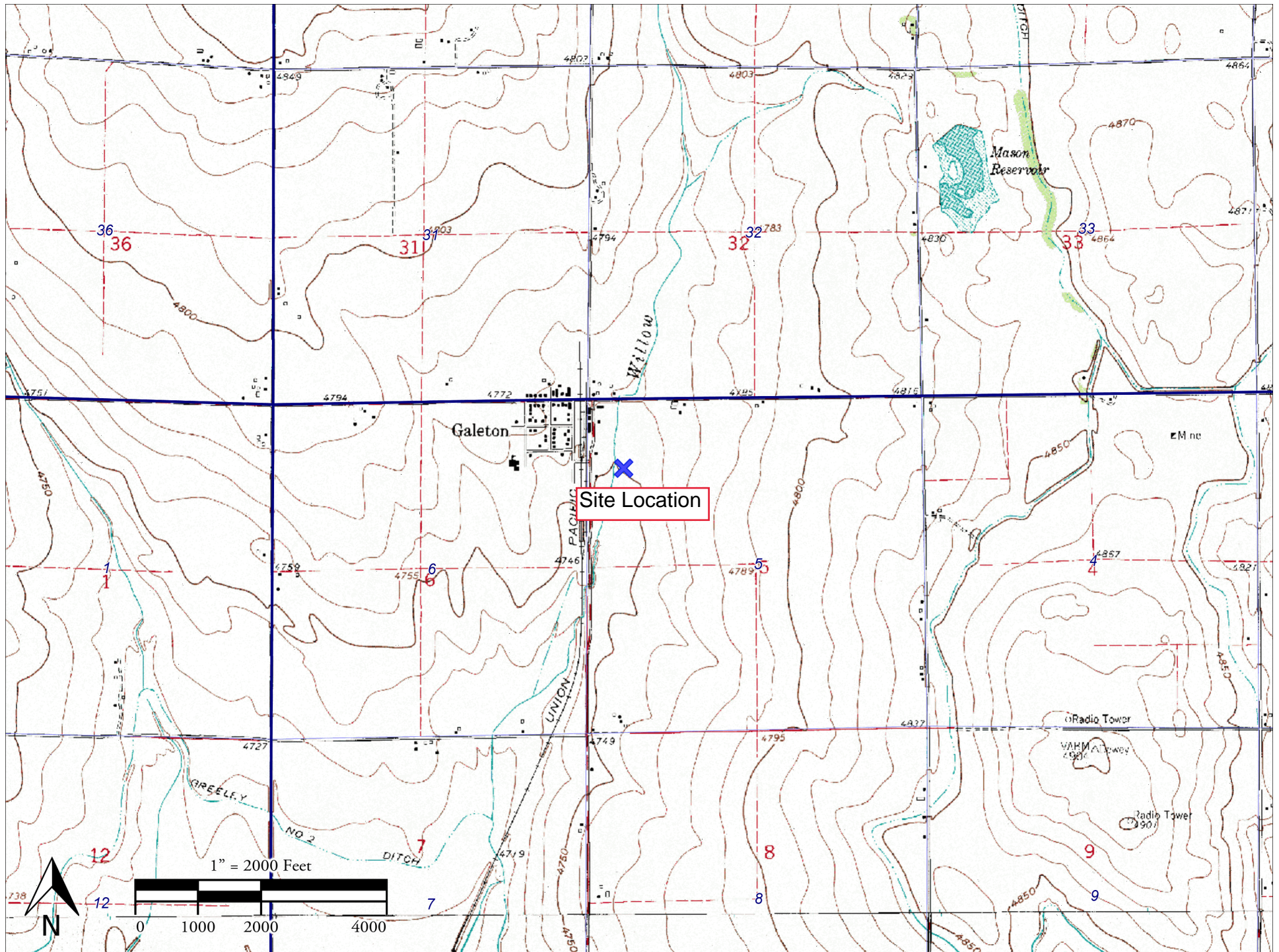
* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

Source material characterization sample, excavated and transported off site for disposal.

Material excavated and transported off site for disposal.

Rouse USX A05-19



Rouse USX A05-19

Site Name: Rouse USX A05-19

Date of Incident: 7/09/2024

API #/Facility #: 05-123-24697

Legal Description: NWNW sec. 5, T6N, R64W

Latitude/Longitude: 40.5192131, -104.58168

Remediation #: 32929

Fremont No: C024-074

Legend

- Sample location
- Impacted location

Spill Location
Proposed 5'x5'x6'
deep excavation

BKG09

BKG08

BKG01

BKG02

FL05 5'

BKG03

BKG04

FL04 3'

FL03 4'

FL02 4'

FL01 3'

BKG07

BKG05

BKG06



1000 ft

Google Earth

Image © 2024 Airbus



Description:

#5-FL05 5' - Start of abandonment no visual staining or odor

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 09, 2024

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Rouse USX A05-19

Work Order #2404170

Enclosed are the results of analyses for samples received by Summit Scientific on 04/10/24 08:00. 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 - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01 3'	2404170-01	Soil	04/09/24 14:15	04/10/24 08:00
FL05 5'	2404170-02	Soil	04/09/24 14:10	04/10/24 08:00

Case Narrative

Rerun analyses were performed by client request on 6/26/2024.
The rerun results included in this report are denoted with "RE#."

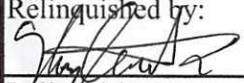
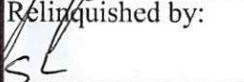

This is a revision of the report originally sent on 6/26/2024 at 15:59 MT.

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.

Client: Fremont Environmental		Send Data To:	Send Invoice To:
Address:		Project Manager: Paul Henehan	Company: Noble
City/State/Zip:		E-Mail: Fremont Distribution List	Project Name/Location:
Phone: 303-261-6246		Project Name: House USX A05-19	AFE#:
Sampler Name: Stanley Gilbert		Project Number:	PO/Billing Codes: UWBWE - A3655-ABN
		Contact: Mike Montoya	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Other	Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD	
1	FL01 3'	4/9/24	14:15	2			X			X		X	X	X	X	X	X		
2	FL05 5'	4/9/24	14:10	2			X			X		X	X	X	X	X	X		
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: 	Date/Time: 4/9/24 17:40	Received by: Summit North	Date/Time: 4/9/24 17:40	TAT Business Days	Field DO	Notes:
Relinquished by: 	Date/Time: 4/9/24 0800	Received by: 	Date/Time: 4/9/24 0800	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 7.0	Corrected Temperature: 0	IR gun #:	HNO3 lot #:	Standard	Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2404170Client: FremontClient Project ID: Douse USX A0519Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐Airbill #: ☐
☐ ☐ ☐ ☐ ☐

Matrix (Check all that apply)

Air ☐Soil/Solid ☐Water ☐Other ☐

Temp (°C)

7.0

Thermometer #

1

	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"/>	<u>once</u>
If custody seals are present, are they intact? ⁽¹⁾	<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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , 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? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>no sample times</u>
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.
AB
Custodian Printed Name

4/10/24
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19

Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL01 3'
2404170-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0397	04/12/24	04/13/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0465	116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0381	95.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0377	94.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0399	04/12/24	04/12/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	6.52	52.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL01 3'
2404170-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0393	04/12/24	04/13/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0182	54.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	48.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0594	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL01 3'
2404170-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.95	0.200	mg/kg dry	1	BHD0888	04/24/24	05/15/24	EPA 6020B
Barium	75.0	0.400	"	"	"	"	"	"
Cadmium	0.327	0.200	"	"	"	"	"	"
Copper	15.3	0.400	"	"	"	"	"	"
Nickel	10.3	0.400	"	"	"	"	"	"
Silver	0.0418	0.0200	"	"	"	"	"	"
Zinc	24.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0671	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.8	0.0500	mg/L dry	1	BHD0960	04/25/24	05/21/24	EPA 6020B	
Magnesium	7.76	0.0500	"	"	"	"	"	"	
Sodium	9.40	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.411	0.00100	units	1	BHE0677	05/22/24	05/22/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.8		%	1	BHD0513	04/16/24	04/17/24	Calculation	

Summit Scientific

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Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL01 3'
2404170-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Specific Conductance (EC)	0.159	0.0100	mmhos/cm	1	BHD0961	04/25/24	04/30/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
pH	9.26		pH Units	1	BHD0962	04/25/24	04/30/24	EPA 9045D	

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL01 3'
2404170-01RE1 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Lead	13.7	0.200		mg/kg dry	1	BHF0956	06/28/24	07/04/24	EPA 6020B	

Summit Scientific

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL05 5'
2404170-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0397	04/12/24	04/13/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0423	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0374	93.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0399	04/12/24	04/12/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	6.97	55.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL05 5'
2404170-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0110	0.00500	mg/kg	1	BHD0393	04/12/24	04/13/24	EPA 8270D SIM	
Anthracene	0.0194	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0110	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0209	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0105	0.00500	"	"	"	"	"	"	
Chrysene	0.0240	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0681	0.00500	"	"	"	"	"	"	
Fluorene	0.0102	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	"	"	"	"	"	
Pyrene	0.0707	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0252	75.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0230	69.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0594	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.18	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	85.6	0.400	"	"	"	"	"	"	

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL05 5'
2404170-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Cadmium	0.378	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B
Copper	6.72	0.400	"	"	"	"	"	"
Lead	7.47	0.200	"	"	"	"	"	"
Nickel	6.78	0.400	"	"	"	"	"	"
Silver	0.0304	0.0200	"	"	"	"	"	"
Zinc	27.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0671	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	23.9	0.0500	mg/L dry	1	BHD0960	04/25/24	05/21/24	EPA 6020B	
Magnesium	12.3	0.0500	"	"	"	"	"	"	
Sodium	56.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.34	0.00100	units	1	BHE0677	05/22/24	05/22/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.7		%	1	BHD0513	04/16/24	04/17/24	Calculation	

Summit Scientific

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Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

FL05 5'
2404170-02 (Soil)

Summit Scientific

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.560	0.0100		mmhos/cm	1	BHD0961	04/25/24	04/30/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.90			pH Units	1	BHD0962	04/25/24	04/30/24	EPA 9045D	

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Reported:
07/09/24 15:50

FL05 5'
2404170-02RE1 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

I-04, O-05

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	0.0246	0.00500	mg/kg	1	BHF0938	06/28/24	06/28/24	EPA 8270D SIM	

Date Sampled: **04/09/24 14:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0135	40.4 %	40-150		"	"	"	"	
<i>Surrogate: Fluoranthene-d10</i>	0.0151	45.3 %	40-150		"	"	"	"	

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0397 - EPA 5030 Soil MS

Blank (BHD0397-BLK1)

Prepared: 04/12/24 Analyzed: 04/13/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	50-150			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	50-150			

LCS (BHD0397-BS1)

Prepared: 04/12/24 Analyzed: 04/13/24

Benzene	0.0782	0.0020	mg/kg	0.100		78.2	70-130			
Toluene	0.0988	0.0050	"	0.100		98.8	70-130			
Ethylbenzene	0.101	0.0050	"	0.100		101	70-130			
m,p-Xylene	0.193	0.010	"	0.200		96.7	70-130			
o-Xylene	0.0970	0.0050	"	0.100		97.0	70-130			
1,2,4-Trimethylbenzene	0.0956	0.0050	"	0.100		95.6	70-130			
1,3,5-Trimethylbenzene	0.0970	0.0050	"	0.100		97.0	70-130			
Naphthalene	0.0869	0.0038	"	0.100		86.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0375		"	0.0400		93.7	50-150			
Surrogate: Toluene-d8	0.0422		"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.2	50-150			

Matrix Spike (BHD0397-MS1)

Source: 2404168-01

Prepared: 04/12/24 Analyzed: 04/13/24

Benzene	0.0667	0.0020	mg/kg	0.100	ND	66.7	70-130			QM-07
Toluene	0.0703	0.0050	"	0.100	ND	70.3	70-130			
Ethylbenzene	0.0801	0.0050	"	0.100	ND	80.1	70-130			
m,p-Xylene	0.147	0.010	"	0.200	ND	73.7	70-130			
o-Xylene	0.0752	0.0050	"	0.100	ND	75.2	70-130			
1,2,4-Trimethylbenzene	0.0641	0.0050	"	0.100	ND	64.1	70-130			QM-07
1,3,5-Trimethylbenzene	0.0712	0.0050	"	0.100	ND	71.2	70-130			
Naphthalene	0.0540	0.0038	"	0.100	ND	54.0	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0341		"	0.0400		85.2	50-150			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	50-150			

Summit Scientific

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0397 - EPA 5030 Soil MS

Matrix Spike Dup (BHD0397-MSD1)		Source: 2404168-01			Prepared: 04/12/24 Analyzed: 04/13/24					
Benzene	0.0698	0.0020	mg/kg	0.100	ND	69.8	70-130	4.61	30	QM-07
Toluene	0.0742	0.0050	"	0.100	ND	74.2	70-130	5.48	30	
Ethylbenzene	0.0824	0.0050	"	0.100	ND	82.4	70-130	2.81	30	
m,p-Xylene	0.153	0.010	"	0.200	ND	76.4	70-130	3.66	30	
o-Xylene	0.0778	0.0050	"	0.100	ND	77.8	70-130	3.41	30	
1,2,4-Trimethylbenzene	0.0667	0.0050	"	0.100	ND	66.7	70-130	3.99	30	QM-07
1,3,5-Trimethylbenzene	0.0730	0.0050	"	0.100	ND	73.0	70-130	2.54	30	
Naphthalene	0.0522	0.0038	"	0.100	ND	52.2	70-130	3.39	30	QM-07
Surrogate: 1,2-Dichloroethane-d4		0.0386	"	0.0400		96.4	50-150			
Surrogate: Toluene-d8		0.0388	"	0.0400		97.0	50-150			
Surrogate: 4-Bromofluorobenzene		0.0395	"	0.0400		98.7	50-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0399 - EPA 3550A

Blank (BHD0399-BLK1)

Prepared & Analyzed: 04/12/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	13.2		"	12.5		106	30-150			

LCS (BHD0399-BS1)

Prepared & Analyzed: 04/12/24

C10-C28 (DRO)	420	50	mg/kg	500		84.1	70-130			
Surrogate: o-Terphenyl	12.2		"	12.5		97.9	30-150			

Matrix Spike (BHD0399-MS1)

Source: 2404168-01

Prepared: 04/12/24 Analyzed: 04/15/24

C10-C28 (DRO)	350	50	mg/kg	500	23.9	65.3	70-130			QM-07
Surrogate: o-Terphenyl	7.69		"	12.5		61.5	30-150			

Matrix Spike Dup (BHD0399-MSD1)

Source: 2404168-01

Prepared: 04/12/24 Analyzed: 04/15/24

C10-C28 (DRO)	233	50	mg/kg	500	23.9	41.8	70-130	40.3	20	QM-07
Surrogate: o-Terphenyl	5.38		"	12.5		43.1	30-150			

Summit Scientific

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PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHD0393 - EPA 5030 Soil MS

Blank (BHD0393-BLK1)

Prepared: 04/12/24 Analyzed: 04/13/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0388		"	0.0333		116	40-150			
Surrogate: Fluoranthene-d10	0.0343		"	0.0333		103	40-150			

LCS (BHD0393-BS1)

Prepared: 04/12/24 Analyzed: 04/13/24

Acenaphthene	0.0342	0.00500	mg/kg	0.0333	103	31-137
Anthracene	0.0340	0.00500	"	0.0333	102	30-120
Benzo (a) anthracene	0.0246	0.00500	"	0.0333	73.7	30-120
Benzo (a) pyrene	0.0285	0.00500	"	0.0333	85.6	30-120
Benzo (b) fluoranthene	0.0291	0.00500	"	0.0333	87.3	30-120
Benzo (k) fluoranthene	0.0346	0.00500	"	0.0333	104	30-120
Chrysene	0.0349	0.00500	"	0.0333	105	30-120
Dibenz (a,h) anthracene	0.0291	0.00500	"	0.0333	87.3	30-120
Fluoranthene	0.0306	0.00500	"	0.0333	91.8	30-120
Fluorene	0.0222	0.00500	"	0.0333	66.6	30-120
Indeno (1,2,3-cd) pyrene	0.0316	0.00500	"	0.0333	94.9	30-120
Pyrene	0.0444	0.00500	"	0.0333	133	35-142
1-Methylnaphthalene	0.0349	0.00500	"	0.0333	105	35-142
2-Methylnaphthalene	0.0262	0.00500	"	0.0333	78.6	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0368		"	0.0333	110	40-150
Surrogate: Fluoranthene-d10	0.0296		"	0.0333	88.7	40-150

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Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0393 - EPA 5030 Soil MS

Matrix Spike (BHD0393-MS1)			Source: 2404169-01		Prepared: 04/12/24 Analyzed: 04/13/24					
Acenaphthene	0.0267	0.00500	mg/kg	0.0333	ND	80.2	31-137			
Anthracene	0.0266	0.00500	"	0.0333	ND	79.8	30-120			
Benzo (a) anthracene	0.0216	0.00500	"	0.0333	ND	64.7	30-120			
Benzo (a) pyrene	0.0192	0.00500	"	0.0333	ND	57.5	30-120			
Benzo (b) fluoranthene	0.0180	0.00500	"	0.0333	ND	54.0	30-120			
Benzo (k) fluoranthene	0.0238	0.00500	"	0.0333	ND	71.3	30-120			
Chrysene	0.0286	0.00500	"	0.0333	ND	85.9	30-120			
Dibenz (a,h) anthracene	0.0222	0.00500	"	0.0333	ND	66.6	30-120			
Fluoranthene	0.0264	0.00500	"	0.0333	ND	79.1	30-120			
Fluorene	0.0194	0.00500	"	0.0333	ND	58.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0262	0.00500	"	0.0333	ND	78.6	30-120			
Pyrene	0.0337	0.00500	"	0.0333	ND	101	35-142			
1-Methylnaphthalene	0.0269	0.00500	"	0.0333	ND	80.8	15-130			
2-Methylnaphthalene	0.0238	0.00500	"	0.0333	ND	71.3	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0282		"	0.0333		84.6	40-150			
Surrogate: Fluoranthene-d10	0.0257		"	0.0333		77.2	40-150			

Matrix Spike Dup (BHD0393-MSD1)			Source: 2404169-01		Prepared: 04/12/24 Analyzed: 04/13/24					
Acenaphthene	0.0253	0.00500	mg/kg	0.0333	ND	75.9	31-137	5.46	30	
Anthracene	0.0248	0.00500	"	0.0333	ND	74.5	30-120	6.83	30	
Benzo (a) anthracene	0.0204	0.00500	"	0.0333	ND	61.2	30-120	5.59	30	
Benzo (a) pyrene	0.0183	0.00500	"	0.0333	ND	54.8	30-120	4.76	30	
Benzo (b) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.4	30-120	2.99	30	
Benzo (k) fluoranthene	0.0227	0.00500	"	0.0333	ND	68.0	30-120	4.72	30	
Chrysene	0.0264	0.00500	"	0.0333	ND	79.1	30-120	8.18	30	
Dibenz (a,h) anthracene	0.0172	0.00500	"	0.0333	ND	51.7	30-120	25.2	30	
Fluoranthene	0.0239	0.00500	"	0.0333	ND	71.6	30-120	10.0	30	
Fluorene	0.0178	0.00500	"	0.0333	ND	53.3	30-120	8.84	30	
Indeno (1,2,3-cd) pyrene	0.0249	0.00500	"	0.0333	ND	74.6	30-120	5.19	30	
Pyrene	0.0300	0.00500	"	0.0333	ND	89.9	35-142	11.6	30	
1-Methylnaphthalene	0.0255	0.00500	"	0.0333	ND	76.6	15-130	5.22	50	
2-Methylnaphthalene	0.0198	0.00500	"	0.0333	ND	59.4	15-130	18.3	50	
Surrogate: 2-Methylnaphthalene-d10	0.0275		"	0.0333		82.4	40-150			
Surrogate: Fluoranthene-d10	0.0239		"	0.0333		71.7	40-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHF0938 - EPA 5030 Soil MS

Blank (BHF0938-BLK1)

Prepared & Analyzed: 06/28/24

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

Surrogate: 2-Methylnaphthalene-d10	0.0135	"	0.0333	40.4	40-150
Surrogate: Fluoranthene-d10	0.0144	"	0.0333	43.2	40-150

LCS (BHF0938-BS1)

Prepared & Analyzed: 06/28/24

Acenaphthene	0.0276	0.00500	mg/kg	0.0333	82.7	31-137
Anthracene	0.0243	0.00500	"	0.0333	73.0	30-120
Benzo (a) anthracene	0.0218	0.00500	"	0.0333	65.5	30-120
Benzo (a) pyrene	0.0141	0.00500	"	0.0333	42.2	30-120
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	41.0	30-120
Benzo (k) fluoranthene	0.0139	0.00500	"	0.0333	41.8	30-120
Chrysene	0.0197	0.00500	"	0.0333	59.2	30-120
Dibenz (a,h) anthracene	0.0175	0.00500	"	0.0333	52.5	30-120
Fluoranthene	0.0262	0.00500	"	0.0333	78.5	30-120
Fluorene	0.0209	0.00500	"	0.0333	62.6	30-120
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	0.0333	57.4	30-120
Pyrene	0.0179	0.00500	"	0.0333	53.8	35-142
1-Methylnaphthalene	0.0186	0.00500	"	0.0333	55.8	35-142
2-Methylnaphthalene	0.0190	0.00500	"	0.0333	57.1	35-142

Surrogate: 2-Methylnaphthalene-d10	0.0183	"	0.0333	54.8	40-150
Surrogate: Fluoranthene-d10	0.0276	"	0.0333	82.8	40-150

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Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHF0938 - EPA 5030 Soil MS

Matrix Spike (BHF0938-MS1)

Source: 2406444-02

Prepared & Analyzed: 06/28/24

Acenaphthene	0.0145	0.00500	mg/kg	0.0333	ND	43.4	31-137		
Anthracene	0.0182	0.00500	"	0.0333	ND	54.6	30-120		
Benzo (a) anthracene	0.0166	0.00500	"	0.0333	ND	49.9	30-120		
Benzo (a) pyrene	0.0157	0.00500	"	0.0333	ND	47.2	30-120		
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.1	30-120		
Benzo (k) fluoranthene	0.0155	0.00500	"	0.0333	ND	46.4	30-120		
Chrysene	0.0146	0.00500	"	0.0333	ND	43.9	30-120		
Dibenz (a,h) anthracene	0.0142	0.00500	"	0.0333	ND	42.5	30-120		
Fluoranthene	0.0151	0.00500	"	0.0333	ND	45.2	30-120		
Fluorene	0.0161	0.00500	"	0.0333	ND	48.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.7	30-120		
Pyrene	0.0178	0.00500	"	0.0333	ND	53.4	35-142		
1-Methylnaphthalene	0.0138	0.00500	"	0.0333	ND	41.4	15-130		
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.1	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0138		"	0.0333		41.5	40-150		
Surrogate: Fluoranthene-d10	0.0165		"	0.0333		49.4	40-150		

Matrix Spike Dup (BHF0938-MSD1)

Source: 2406444-02

Prepared & Analyzed: 06/28/24

Acenaphthene	0.0141	0.00500	mg/kg	0.0333	ND	42.2	31-137	2.84	30
Anthracene	0.0193	0.00500	"	0.0333	ND	57.9	30-120	5.85	30
Benzo (a) anthracene	0.0212	0.00500	"	0.0333	ND	63.6	30-120	24.1	30
Benzo (a) pyrene	0.0135	0.00500	"	0.0333	ND	40.4	30-120	15.5	30
Benzo (b) fluoranthene	0.0155	0.00500	"	0.0333	ND	46.6	30-120	12.7	30
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.7	30-120	5.86	30
Chrysene	0.0161	0.00500	"	0.0333	ND	48.3	30-120	9.47	30
Dibenz (a,h) anthracene	0.0185	0.00500	"	0.0333	ND	55.6	30-120	26.7	30
Fluoranthene	0.0196	0.00500	"	0.0333	ND	58.9	30-120	26.2	30
Fluorene	0.0145	0.00500	"	0.0333	ND	43.4	30-120	10.4	30
Indeno (1,2,3-cd) pyrene	0.0200	0.00500	"	0.0333	ND	59.9	30-120	9.17	30
Pyrene	0.0154	0.00500	"	0.0333	ND	46.1	35-142	14.7	30
1-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.4	15-130	19.6	50
2-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130	19.5	50
Surrogate: 2-Methylnaphthalene-d10	0.0167		"	0.0333		50.2	40-150		
Surrogate: Fluoranthene-d10	0.0205		"	0.0333		61.5	40-150		

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0594 - EPA 3050B

Blank (BHD0594-BLK1)

Prepared: 04/18/24 Analyzed: 05/29/24

Boron ND 2.00 mg/L

LCS (BHD0594-BS1)

Prepared: 04/18/24 Analyzed: 05/29/24

Boron 5.59 2.00 mg/L 5.00 112 80-120

Duplicate (BHD0594-DUP1)

Source: 2404166-01

Prepared: 04/18/24 Analyzed: 05/29/24

Boron 0.441 2.00 mg/L 0.433 1.73 20

Matrix Spike (BHD0594-MS1)

Source: 2404166-01

Prepared: 04/18/24 Analyzed: 05/29/24

Boron 5.44 2.00 mg/L 5.00 0.433 100 75-125

Matrix Spike Dup (BHD0594-MSD1)

Source: 2404166-01

Prepared: 04/18/24 Analyzed: 05/29/24

Boron 5.99 2.00 mg/L 5.00 0.433 111 75-125 9.69 25

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Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0873 - EPA 3050B

Blank (BHD0873-BLK1)

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BHD0873-BS1)

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	38.9	0.200	mg/kg wet	40.0	97.3	80-120
Barium	39.1	0.400	"	40.0	97.8	80-120
Cadmium	1.88	0.200	"	2.00	94.2	80-120
Copper	38.3	0.400	"	40.0	95.9	80-120
Lead	18.9	0.200	"	20.0	94.4	80-120
Nickel	38.1	0.400	"	40.0	95.2	80-120
Silver	1.87	0.0200	"	2.00	93.7	80-120
Zinc	38.1	0.400	"	40.0	95.3	80-120
Selenium	4.05	0.260	"	4.00	101	80-120

Duplicate (BHD0873-DUP1)

Source: 2404158-01

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	6.33	0.200	mg/kg dry	6.25	1.37	20	QR-04
Barium	125	0.400	"	234	60.6	20	
Cadmium	0.288	0.200	"	0.283	1.72	20	
Copper	15.7	0.400	"	15.3	2.92	20	
Lead	12.7	0.200	"	12.8	0.854	20	
Nickel	17.6	0.400	"	17.4	1.18	20	
Silver	0.0724	0.0200	"	0.0678	6.56	20	
Zinc	59.5	0.400	"	59.5	0.139	20	
Selenium	ND	0.260	"	ND		20	

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Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0873 - EPA 3050B

Matrix Spike (BHD0873-MS1)		Source: 2404158-01			Prepared: 04/24/24 Analyzed: 05/09/24					
Arsenic	48.9	0.200	mg/kg dry	44.9	6.25	95.0	75-125			
Barium	154	0.400	"	44.9	234	NR	75-125			QM-07
Cadmium	2.43	0.200	"	2.24	0.283	95.7	75-125			
Copper	57.4	0.400	"	44.9	15.3	93.9	75-125			
Lead	32.4	0.200	"	22.4	12.8	87.4	75-125			
Nickel	60.4	0.400	"	44.9	17.4	95.8	75-125			
Silver	2.17	0.0200	"	2.24	0.0678	93.7	75-125			
Zinc	102	0.400	"	44.9	59.5	93.9	75-125			
Selenium	4.47	0.260	"	4.49	ND	99.6	75-125			

Matrix Spike Dup (BHD0873-MSD1)		Source: 2404158-01			Prepared: 04/24/24 Analyzed: 05/09/24					
Arsenic	48.3	0.200	mg/kg dry	44.9	6.25	93.6	75-125	1.28	25	
Barium	154	0.400	"	44.9	234	NR	75-125	0.0816	25	QM-07
Cadmium	2.47	0.200	"	2.24	0.283	97.4	75-125	1.61	25	
Copper	56.8	0.400	"	44.9	15.3	92.5	75-125	1.07	25	
Lead	32.4	0.200	"	22.4	12.8	87.4	75-125	0.0208	25	
Nickel	59.4	0.400	"	44.9	17.4	93.8	75-125	1.55	25	
Silver	2.17	0.0200	"	2.24	0.0678	93.7	75-125	0.0620	25	
Zinc	100	0.400	"	44.9	59.5	90.7	75-125	1.43	25	
Selenium	4.25	0.260	"	4.49	ND	94.6	75-125	5.21	25	

Batch BHD0888 - EPA 3050B

Blank (BHD0888-BLK1)		Prepared: 04/24/24 Analyzed: 05/15/24								
Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0888 - EPA 3050B

LCS (BHD0888-BS1)

Prepared: 04/24/24 Analyzed: 05/15/24

Arsenic	38.7	0.200	mg/kg wet	40.0		96.9	80-120			
Barium	38.4	0.400	"	40.0		96.0	80-120			
Cadmium	1.80	0.200	"	2.00		89.8	80-120			
Copper	38.7	0.400	"	40.0		96.7	80-120			
Lead	18.3	0.200	"	20.0		91.4	80-120			
Nickel	38.4	0.400	"	40.0		96.0	80-120			
Silver	1.82	0.0200	"	2.00		90.8	80-120			
Zinc	37.6	0.400	"	40.0		94.0	80-120			
Selenium	3.86	0.260	"	4.00		96.6	80-120			

Duplicate (BHD0888-DUP1)

Source: 2404170-01

Prepared: 04/24/24 Analyzed: 05/15/24

Arsenic	7.75	0.200	mg/kg dry		5.95			26.4	20	QM-04
Barium	229	0.400	"		75.0			101	20	QM-04
Cadmium	0.289	0.200	"		0.327			12.4	20	
Copper	17.8	0.400	"		15.3			14.8	20	
Lead	19.3	0.200	"		21.0			8.51	20	
Nickel	12.7	0.400	"		10.3			20.8	20	QM-04
Silver	0.0453	0.0200	"		0.0418			7.94	20	
Zinc	26.7	0.400	"		24.8			7.40	20	
Selenium	0.213	0.260	"		0.190			11.4	20	

Matrix Spike (BHD0888-MS1)

Source: 2404170-01

Prepared: 04/24/24 Analyzed: 05/15/24

Arsenic	52.0	0.200	mg/kg dry	45.2	5.95	102	75-125			
Barium	288	0.400	"	45.2	75.0	471	75-125			QM-07
Cadmium	2.45	0.200	"	2.26	0.327	93.9	75-125			
Copper	60.0	0.400	"	45.2	15.3	98.7	75-125			
Lead	32.7	0.200	"	22.6	21.0	51.9	75-125			QM-07
Nickel	56.9	0.400	"	45.2	10.3	103	75-125			
Silver	2.21	0.0200	"	2.26	0.0418	96.1	75-125			
Zinc	45.1	0.400	"	45.2	24.8	44.8	75-125			QM-07
Selenium	3.65	0.260	"	4.52	0.190	76.7	75-125			

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0888 - EPA 3050B

Matrix Spike Dup (BHD0888-MSD1)

Source: 2404170-01

Prepared: 04/24/24 Analyzed: 05/15/24

Arsenic	51.1	0.200	mg/kg dry	45.2	5.95	99.8	75-125	1.82	25	
Barium	289	0.400	"	45.2	75.0	473	75-125	0.293	25	QM-07
Cadmium	2.47	0.200	"	2.26	0.327	94.9	75-125	0.937	25	
Copper	59.1	0.400	"	45.2	15.3	96.7	75-125	1.55	25	
Lead	32.6	0.200	"	22.6	21.0	51.3	75-125	0.409	25	QM-07
Nickel	56.1	0.400	"	45.2	10.3	101	75-125	1.38	25	
Silver	2.22	0.0200	"	2.26	0.0418	96.6	75-125	0.448	25	
Zinc	45.0	0.400	"	45.2	24.8	44.6	75-125	0.193	25	QM-07
Selenium	3.62	0.260	"	4.52	0.190	75.8	75-125	1.07	25	

Batch BHF0956 - EPA 3050B

Blank (BHF0956-BLK1)

Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BHF0956-BS1)

Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	41.7	0.200	mg/kg wet	40.0	104	80-120
Barium	40.8	0.400	"	40.0	102	80-120
Cadmium	1.97	0.200	"	2.00	98.3	80-120
Copper	41.9	0.400	"	40.0	105	80-120
Lead	19.6	0.200	"	20.0	98.0	80-120
Nickel	41.4	0.400	"	40.0	103	80-120
Silver	1.98	0.0200	"	2.00	98.8	80-120
Zinc	40.9	0.400	"	40.0	102	80-120
Selenium	4.51	0.260	"	4.00	113	80-120

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHF0956 - EPA 3050B

Duplicate (BHF0956-DUP1)		Source: 2404170-01RE1			Prepared: 06/28/24 Analyzed: 07/04/24					
Arsenic	6.71	0.200	mg/kg dry		8.41			22.5	20	QR-04
Barium	80.0	0.400	"		59.5			29.4	20	QR-04
Cadmium	0.337	0.200	"		0.313			7.18	20	
Copper	14.4	0.400	"		17.0			16.1	20	
Lead	12.3	0.200	"		13.7			10.8	20	
Nickel	10.9	0.400	"		12.8			16.8	20	
Silver	0.0439	0.0200	"		0.0408			7.50	20	
Zinc	51.8	0.400	"		60.5			15.6	20	
Selenium	0.261	0.260	"		0.243			6.88	20	

Matrix Spike (BHF0956-MS1)		Source: 2404170-01RE1			Prepared: 06/28/24 Analyzed: 07/04/24					
Arsenic	52.5	0.200	mg/kg dry	45.9	8.41	96.0	75-125			
Barium	625	0.400	"	45.9	59.5	NR	75-125			QM-07
Cadmium	2.56	0.200	"	2.30	0.313	98.1	75-125			
Copper	59.3	0.400	"	45.9	17.0	92.2	75-125			
Lead	34.1	0.200	"	23.0	13.7	88.7	75-125			
Nickel	55.6	0.400	"	45.9	12.8	93.1	75-125			
Silver	2.26	0.0200	"	2.30	0.0408	96.7	75-125			
Zinc	99.1	0.400	"	45.9	60.5	83.9	75-125			
Selenium	4.92	0.260	"	4.59	0.243	102	75-125			

Matrix Spike Dup (BHF0956-MSD1)		Source: 2404170-01RE1			Prepared: 06/28/24 Analyzed: 07/04/24					
Arsenic	49.9	0.200	mg/kg dry	44.5	8.41	93.3	75-125	4.95	25	
Barium	398	0.400	"	44.5	59.5	760	75-125	44.5	25	QM-07
Cadmium	2.53	0.200	"	2.23	0.313	99.4	75-125	1.52	25	
Copper	59.3	0.400	"	44.5	17.0	95.0	75-125	0.0680	25	
Lead	33.7	0.200	"	22.3	13.7	89.7	75-125	1.16	25	
Nickel	56.2	0.400	"	44.5	12.8	97.3	75-125	1.04	25	
Silver	2.22	0.0200	"	2.23	0.0408	98.1	75-125	1.69	25	
Zinc	102	0.400	"	44.5	60.5	92.2	75-125	2.51	25	
Selenium	4.97	0.260	"	4.45	0.243	106	75-125	0.939	25	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0671 - 3060A Mod

Blank (BHD0671-BLK1)

Prepared & Analyzed: 04/19/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHD0671-BS1)

Prepared & Analyzed: 04/19/24

Chromium, Hexavalent 24.7 0.30 mg/kg wet 25.0 98.8 80-120

Duplicate (BHD0671-DUP1)

Source: 2404158-01

Prepared & Analyzed: 04/19/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHD0671-MS1)

Source: 2404158-01

Prepared & Analyzed: 04/19/24

Chromium, Hexavalent 28.8 0.30 mg/kg dry 29.2 ND 98.6 75-125

Matrix Spike Dup (BHD0671-MSD1)

Source: 2404158-01

Prepared & Analyzed: 04/19/24

Chromium, Hexavalent 28.8 0.30 mg/kg dry 29.2 ND 98.6 75-125 0.00 20

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19
Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0960 - General Preparation

Blank (BHD0960-BLK1)

Prepared: 04/25/24 Analyzed: 05/21/24

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

LCS (BHD0960-BS1)

Prepared: 04/25/24 Analyzed: 05/21/24

Calcium	5.21	0.0500	mg/L wet	5.00	104	70-130
Magnesium	4.98	0.0500	"	5.00	99.6	70-130
Sodium	4.91	0.0500	"	5.00	98.1	70-130

Summit Scientific

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



Fremont Environmental	Project: Noble - Rouse USX A05-19	
PO Box 1289	Project Number: UWRWE-A3655-ABN	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	07/09/24 15:50

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

Summit Scientific

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

Batch BHD0513 - General Preparation

Duplicate (BHD0513-DUP1)		Source: 2402304-04			Prepared: 04/16/24 Analyzed: 04/17/24					
% Solids	83.0		%		82.5			0.586	20	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19

Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

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 BHD0961 - General Preparation

Blank (BHD0961-BLK1)

Prepared: 04/25/24 Analyzed: 04/30/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHD0961-BS1)

Prepared: 04/25/24 Analyzed: 04/30/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHD0961-DUP1)

Source: 2404167-01

Prepared: 04/25/24 Analyzed: 04/30/24

Specific Conductance (EC) 0.202 0.0100 mmhos/cm 0.203 0.444 20

Summit Scientific

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



Fremont Environmental	Project: Noble - Rouse USX A05-19	
PO Box 1289	Project Number: UWRWE-A3655-ABN	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	07/09/24 15:50

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

Summit Scientific

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

Batch BHD0962 - General Preparation

LCS (BHD0962-BS1)				Prepared: 04/25/24 Analyzed: 04/30/24						
pH	9.20		pH Units	9.18		100	95-105			
Duplicate (BHD0962-DUP1)				Source: 2404167-01 Prepared: 04/25/24 Analyzed: 04/30/24						
pH	8.52		pH Units	8.46				0.707	20	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse USX A05-19

Project Number: UWRWE-A3655-ABN
Project Manager: Paul Henchan

Reported:
07/09/24 15:50

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-04	Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.
O-05	This sample was extracted outside of the EPA recommended holding time.
I-04	Sample was analyzed out of recommended holding time per clients request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 29, 2024

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Rouse (BKG)
Work Order #2404171

Enclosed are the results of analyses for samples received by Summit Scientific on 04/10/24 08:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is fluid and cursive, with the first name being more prominent.

Natalie Tessier For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG01 0.5'	2404171-01	Soil	04/08/24 12:05	04/10/24 08:00
BKG01 3'	2404171-02	Soil	04/08/24 12:10	04/10/24 08:00
BKG01 5'	2404171-03	Soil	04/08/24 12:15	04/10/24 08:00
BKG02 0.5'	2404171-04	Soil	04/08/24 12:20	04/10/24 08:00
BKG02 3'	2404171-05	Soil	04/08/24 12:25	04/10/24 08:00
BKG02 5'	2404171-06	Soil	04/08/24 12:30	04/10/24 08:00
BKG03 0.5'	2404171-07	Soil	04/08/24 12:35	04/10/24 08:00
BKG03 3'	2404171-08	Soil	04/08/24 12:40	04/10/24 08:00
BKG03 5'	2404171-09	Soil	04/08/24 12:45	04/10/24 08:00
BKG04 0.5'	2404171-10	Soil	04/09/24 16:00	04/10/24 08:00
BKG04 3'	2404171-11	Soil	04/09/24 15:55	04/10/24 08:00
BKG04 5'	2404171-12	Soil	04/09/24 15:50	04/10/24 08:00
BKG05 0.5'	2404171-13	Soil	04/09/24 15:45	04/10/24 08:00
BKG05 3'	2404171-14	Soil	04/09/24 15:40	04/10/24 08:00
BKG05 5'	2404171-15	Soil	04/09/24 15:35	04/10/24 08:00
BKG06 0.5'	2404171-16	Soil	04/09/24 15:30	04/10/24 08:00
BKG06 3'	2404171-17	Soil	04/09/24 15:25	04/10/24 08:00
BKG06 5'	2404171-18	Soil	04/09/24 15:20	04/10/24 08:00
BKG07 0.5'	2404171-19	Soil	04/09/24 15:15	04/10/24 08:00
BKG07 3'	2404171-20	Soil	04/09/24 15:10	04/10/24 08:00
BKG07 5'	2404171-21	Soil	04/09/24 15:05	04/10/24 08:00
BKG08 0.5'	2404171-22	Soil	04/09/24 15:00	04/10/24 08:00
BKG08 3'	2404171-23	Soil	04/09/24 14:55	04/10/24 08:00
BKG08 5'	2404171-24	Soil	04/09/24 14:50	04/10/24 08:00
BKG09 0.5'	2404171-25	Soil	04/09/24 14:45	04/10/24 08:00
BKG09 3'	2404171-26	Soil	04/09/24 14:40	04/10/24 08:00
BKG09 5'	2404171-27	Soil	04/09/24 14:35	04/10/24 08:00

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 - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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.

A handwritten signature in black ink that reads "Matthew Bessin".

Client: Fremont Environmental		Send Data To: Project Manager: Paul Henahan		Send Invoice To: Company: <u>Noble</u>	
Address:		E-Mail: Fremont Distribution List		Project Name/Location:	
City/State/Zip:				AFE#:	
Phone: 303-261-6246		Project Name: <u>House (BK6)</u>		PO/Billing Codes: <u>UWRWE-A3657-ABN</u>	
Sampler Name: Stanley Gilbert		Project Number:		Contact: <u>Mike Montoya</u>	

					Preservative				Matrix			Analysis Requested								Special Instructions		
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate			HOLD	
1	BK601 0.5'	4/8/24	12:05	1			X			X						X	X					
2	BK601 3'		12:10	1																		
3	BK601 5'		12:15	1																		
4	BK602 0.5'		12:20	1																		
5	BK602 3'		12:25	1																		
6	BK602 5'		12:30	1																		
7	BK603 0.5'		12:35	1																		
8	BK603 3'		12:40	1																		
9	BK603 5'		12:45	1																		
10	BK604 0.5'	4/9/24	16:00	1																		
11	BK604 3'		15:55	1																		
12	BK604 5'		15:50	1																		
13	BK605 0.5'		15:45	1																		
14	BK605 3'		15:40	1																		
15	BK605 5'		15:35	1																		

Relinquished by: <u>[Signature]</u>	Date/Time: <u>4/9/24 17:30</u>	Received by: <u>Summit North</u>	Date/Time: <u>4/9/24 17:30</u>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by: <u>52</u>	Date/Time: <u>4/10/24 0800</u>	Received by: <u>[Signature]</u>	Date/Time: <u>4/10/24 0800</u>	Standard	<input checked="" type="checkbox"/> Field Turb.	
Temperature Upon Receipt: <u>7.0</u>	Corrected Temperature: <u>8</u>	IR gun #: <u>1</u>	HNO3 lot #: <u></u>			

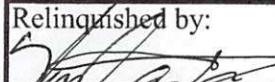
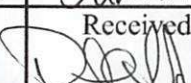


4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 2 of 2
2404171.2	

Client: Fremont Environmental		Send Data To:		Send Invoice To:	
Address:		Project Manager: Paul Henehan		Company: Noble	
City/State/Zip:		E-Mail: Fremont Distribution List		Project Name/Location:	
Phone: 303-261-6246		Project Name: Bause (Bk6)		AFE#:	
Sampler Name: Stanley Gilbert		Project Number:		PO/Billing Codes: WWRWE-A3657-ABN	
				Contact: Mike Montoya	

				Preservative				Matrix				Analysis Requested				Special Instructions			
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD
1	BK606 0.5'	4/9/24	15:30	1			X			X						X	X		
2	BK606 3'		15:25				X			X						X	X		
3	BK606 5'		15:20				X			X						X	X		
4	BK607 0.5'		15:15				X			X						X	X		
5	BK607 3'		15:10				X			X						X	X		
6	BK607 5'		15:05				X			X						X	X		
7	BK608 0.5'		15:00				X			X						X	X		
8	BK608 3'		14:55				X			X						X	X		
9	BK608 5'		14:50				X			X						X	X		
10	BK609 0.5'		14:45				X			X						X	X		
11	BK609 3'		14:40				X			X						X	X		
12	BK609 5'		14:35				X			X						X	X		
13																			
14																			
15																			

Relinquished by: 	Date/Time: 4/9/24 17:30	Received by: Summit North	Date/Time: 4/9/24 17:30	TAT Business Days	Field DO	Notes:
Relinquished by: SL	Date/Time: 4/10/24 0800	Received by: 	Date/Time: 4/10/24 0900	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 7.0	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #:			

S₂

22

Sample Receipt Checklist

S2 Work Order# 2404171

Client: French

Client Project ID:

Paise (BKG)

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

☐ ☐ ☐ ☐ ☐

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

7.0

Thermometer #

1

	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"/>	auzce
If custody seals are present, are they intact? ⁽¹⁾	<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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , 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? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no sample times
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽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

Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG01 0.5'
2404171-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.54	0.200		mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	72.5	0.400		"	"	"	"	"	"	
Cadmium	0.225	0.200		"	"	"	"	"	"	
Copper	7.04	0.400		"	"	"	"	"	"	
Lead	7.10	0.200		"	"	"	"	"	"	
Nickel	7.99	0.400		"	"	"	"	"	"	
Silver	0.0527	0.0200		"	"	"	"	"	"	
Zinc	27.6	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	59.5	0.0500		mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	14.5	0.0500		"	"	"	"	"	"	
Sodium	2.04	0.0500		"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG01 0.5'
2404171-01 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0615	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0445	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.42		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG01 3'
2404171-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.26	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	61.1	0.400	"	"	"	"	"	"	
Cadmium	0.207	0.200	"	"	"	"	"	"	
Copper	6.00	0.400	"	"	"	"	"	"	
Lead	6.35	0.200	"	"	"	"	"	"	
Nickel	7.24	0.400	"	"	"	"	"	"	
Silver	0.0408	0.0200	"	"	"	"	"	"	
Zinc	24.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	45.8	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	12.3	0.0500	"	"	"	"	"	"	
Sodium	2.02	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG01 3'
2404171-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0684	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.0		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0471	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.54		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG01 5'
2404171-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.48	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	59.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.42	0.400	"	"	"	"	"	"	
Lead	4.44	0.200	"	"	"	"	"	"	
Nickel	5.62	0.400	"	"	"	"	"	"	
Silver	0.0304	0.0200	"	"	"	"	"	"	
Zinc	18.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	45.0	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	48.2	0.0500	"	"	"	"	"	"	
Sodium	214	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG01 5'
2404171-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.28	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.4		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.46	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.81		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG02 0.5'
2404171-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.05	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	66.0	0.400	"	"	"	"	"	"	
Cadmium	0.254	0.200	"	"	"	"	"	"	
Copper	7.98	0.400	"	"	"	"	"	"	
Lead	8.78	0.200	"	"	"	"	"	"	
Nickel	7.65	0.400	"	"	"	"	"	"	
Silver	0.0430	0.0200	"	"	"	"	"	"	
Zinc	32.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	32.1	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	10.4	0.0500	"	"	"	"	"	"	
Sodium	4.68	0.0500	"	"	"	"	"	"	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG02 0.5'
2404171-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.184	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.145	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.46		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG02 3'
2404171-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.30	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	34.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.08	0.400	"	"	"	"	"	"	
Lead	3.78	0.200	"	"	"	"	"	"	
Nickel	3.95	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	14.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	24.8	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	6.20	0.0500	"	"	"	"	"	"	
Sodium	72.7	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG02 3'
2404171-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.38	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.0		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.492	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.11		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG02 5'
2404171-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.36	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	37.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.74	0.400	"	"	"	"	"	"	
Lead	4.35	0.200	"	"	"	"	"	"	
Nickel	4.73	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	17.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	15.9	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	12.8	0.0500	"	"	"	"	"	"	
Sodium	117	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG02 5'
2404171-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.30	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.4		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.762	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.19		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG03 0.5'
2404171-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.48	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	69.1	0.400	"	"	"	"	"	"	
Cadmium	0.290	0.200	"	"	"	"	"	"	
Copper	9.95	0.400	"	"	"	"	"	"	
Lead	9.31	0.200	"	"	"	"	"	"	
Nickel	7.35	0.400	"	"	"	"	"	"	
Silver	0.0417	0.0200	"	"	"	"	"	"	
Zinc	40.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	50.0	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	15.9	0.0500	"	"	"	"	"	"	
Sodium	17.2	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG03 0.5'
2404171-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.543	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.5		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.312	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.48		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG03 3'
2404171-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.96	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	88.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.22	0.400	"	"	"	"	"	"	
Lead	4.95	0.200	"	"	"	"	"	"	
Nickel	5.17	0.400	"	"	"	"	"	"	
Silver	0.0282	0.0200	"	"	"	"	"	"	
Zinc	17.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	56.4	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	18.8	0.0500	"	"	"	"	"	"	
Sodium	85.1	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG03 3'
2404171-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.51	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.6		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.820	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.64		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG03 5'
2404171-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	9.48	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	64.6	0.400	"	"	"	"	"	"	
Cadmium	0.462	0.200	"	"	"	"	"	"	
Copper	9.43	0.400	"	"	"	"	"	"	
Lead	4.40	0.200	"	"	"	"	"	"	
Nickel	12.1	0.400	"	"	"	"	"	"	
Silver	0.0228	0.0200	"	"	"	"	"	"	
Zinc	26.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	19.7	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	7.93	0.0500	"	"	"	"	"	"	
Sodium	68.1	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG03 5'
2404171-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.28	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.8		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.457	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/08/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.35		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG04 0.5'
2404171-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.83	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	75.7	0.400	"	"	"	"	"	"	
Cadmium	0.333	0.200	"	"	"	"	"	"	
Copper	12.7	0.400	"	"	"	"	"	"	
Lead	8.56	0.200	"	"	"	"	"	"	
Nickel	7.98	0.400	"	"	"	"	"	"	
Silver	0.0428	0.0200	"	"	"	"	"	"	
Zinc	44.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	64.0	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	16.8	0.0500	"	"	"	"	"	"	
Sodium	21.3	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG04 0.5'
2404171-10 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.613	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.7		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.266	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.74		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG04 3'
2404171-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.97	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	92.5	0.400	"	"	"	"	"	"	
Cadmium	0.375	0.200	"	"	"	"	"	"	
Copper	10.1	0.400	"	"	"	"	"	"	
Lead	9.46	0.200	"	"	"	"	"	"	
Nickel	9.20	0.400	"	"	"	"	"	"	
Silver	0.0500	0.0200	"	"	"	"	"	"	
Zinc	39.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	74.2	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	14.8	0.0500	"	"	"	"	"	"	
Sodium	14.6	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG04 3'
2404171-11 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.405	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.2		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.149	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.07		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG04 5'
2404171-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.85	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	85.7	0.400	"	"	"	"	"	"	
Cadmium	0.371	0.200	"	"	"	"	"	"	
Copper	12.4	0.400	"	"	"	"	"	"	
Lead	9.92	0.200	"	"	"	"	"	"	
Nickel	9.04	0.400	"	"	"	"	"	"	
Silver	0.0410	0.0200	"	"	"	"	"	"	
Zinc	44.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	19.8	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	5.87	0.0500	"	"	"	"	"	"	
Sodium	9.81	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG04 5'
2404171-12 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.498	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.7		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.153	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.83		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG05 0.5'
2404171-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.60	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	67.5	0.400	"	"	"	"	"	"	
Cadmium	0.336	0.200	"	"	"	"	"	"	
Copper	11.5	0.400	"	"	"	"	"	"	
Lead	8.97	0.200	"	"	"	"	"	"	
Nickel	7.24	0.400	"	"	"	"	"	"	
Silver	0.0412	0.0200	"	"	"	"	"	"	
Zinc	41.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	52.9	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	17.0	0.0500	"	"	"	"	"	"	
Sodium	34.1	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG05 0.5'
2404171-13 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.04	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.406	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG05 3'
2404171-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.47	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	110	0.400	"	"	"	"	"	"	
Cadmium	0.328	0.200	"	"	"	"	"	"	
Copper	10.1	0.400	"	"	"	"	"	"	
Lead	9.07	0.200	"	"	"	"	"	"	
Nickel	9.52	0.400	"	"	"	"	"	"	
Silver	0.0474	0.0200	"	"	"	"	"	"	
Zinc	38.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	27.1	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	6.63	0.0500	"	"	"	"	"	"	
Sodium	13.4	0.0500	"	"	"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG05 3'
2404171-14 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.598	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.8		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.236	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.90		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG05 5'
2404171-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	5.08	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	74.1	0.400	"	"	"	"	"	"	
Cadmium	0.348	0.200	"	"	"	"	"	"	
Copper	6.95	0.400	"	"	"	"	"	"	
Lead	5.04	0.200	"	"	"	"	"	"	
Nickel	7.51	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	32.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	143	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	11.7	0.0500	"	"	"	"	"	"	
Sodium	15.3	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG05 5'
2404171-15 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.331	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.2		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.154	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.09		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG06 0.5'
2404171-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.99	0.179	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	86.9	0.357	"	"	"	"	"	"	
Cadmium	0.383	0.179	"	"	"	"	"	"	
Copper	17.1	0.357	"	"	"	"	"	"	
Lead	10.0	0.179	"	"	"	"	"	"	
Nickel	9.25	0.357	"	"	"	"	"	"	
Silver	0.0484	0.0179	"	"	"	"	"	"	
Zinc	54.1	0.357	"	"	"	"	"	"	
Selenium	0.266	0.232	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	36.9	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	13.3	0.0500	"	"	"	"	"	"	
Sodium	36.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG06 0.5'
2404171-16 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.29	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.526	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG06 3'
2404171-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.25	0.200		mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	39.4	0.400		"	"	"	"	"	"	
Cadmium	0.352	0.200		"	"	"	"	"	"	
Copper	14.7	0.400		"	"	"	"	"	"	
Lead	10.7	0.200		"	"	"	"	"	"	
Nickel	15.3	0.400		"	"	"	"	"	"	
Silver	0.0436	0.0200		"	"	"	"	"	"	
Zinc	54.3	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0672	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	33.7	0.0500		mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	8.15	0.0500		"	"	"	"	"	"	
Sodium	23.2	0.0500		"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG06 3'
2404171-17 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.931	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.360	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG06 5'
2404171-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.79	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	88.0	0.400	"	"	"	"	"	"	
Cadmium	0.229	0.200	"	"	"	"	"	"	
Copper	7.17	0.400	"	"	"	"	"	"	
Lead	7.25	0.200	"	"	"	"	"	"	
Nickel	8.12	0.400	"	"	"	"	"	"	
Silver	0.0510	0.0200	"	"	"	"	"	"	
Zinc	28.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	15.6	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	14.2	0.0500	"	"	"	"	"	"	
Sodium	68.7	0.0500	"	"	"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG06 5'
2404171-18 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.03	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.3		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.454	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.19		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG07 0.5'
2404171-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.37	0.200		mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	69.0	0.400		"	"	"	"	"	"	
Cadmium	0.317	0.200		"	"	"	"	"	"	
Copper	14.0	0.400		"	"	"	"	"	"	
Lead	9.56	0.200		"	"	"	"	"	"	
Nickel	7.26	0.400		"	"	"	"	"	"	
Silver	0.0412	0.0200		"	"	"	"	"	"	
Zinc	45.3	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	46.4	0.0500		mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	14.4	0.0500		"	"	"	"	"	"	
Sodium	21.7	0.0500		"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG07 0.5'
2404171-19 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.713	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.9		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.223	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.69		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG07 3'
2404171-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0595	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.91	0.200	mg/kg dry	1	BHD0871	04/24/24	05/17/24	EPA 6020B	
Barium	114	0.400	"	"	"	"	"	"	
Cadmium	0.349	0.200	"	"	"	"	"	"	
Copper	10.1	0.400	"	"	"	"	"	"	
Lead	9.82	0.200	"	"	"	"	"	"	
Nickel	11.4	0.400	"	"	"	"	"	"	
Silver	0.0596	0.0200	"	"	"	"	"	"	
Zinc	42.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	20.1	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	7.66	0.0500	"	"	"	"	"	"	
Sodium	14.7	0.0500	"	"	"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG07 3'
2404171-20 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.708	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.5		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.218	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.93		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG07 5'
2404171-21 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	6.98	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	73.9	0.400	"	"	"	"	"	"	
Cadmium	0.462	0.200	"	"	"	"	"	"	
Copper	9.31	0.400	"	"	"	"	"	"	
Lead	9.52	0.200	"	"	"	"	"	"	
Nickel	9.04	0.400	"	"	"	"	"	"	
Silver	0.0390	0.0200	"	"	"	"	"	"	
Zinc	28.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	21.3	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	8.20	0.0500	"	"	"	"	"	"	
Sodium	19.5	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG07 5'
2404171-21 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.910	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.0		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.250	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.14		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG08 0.5'
2404171-22 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.78	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	47.7	0.400	"	"	"	"	"	"	
Cadmium	0.293	0.200	"	"	"	"	"	"	
Copper	9.35	0.400	"	"	"	"	"	"	
Lead	6.02	0.200	"	"	"	"	"	"	
Nickel	4.82	0.400	"	"	"	"	"	"	
Silver	0.0242	0.0200	"	"	"	"	"	"	
Zinc	30.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	54.1	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	16.3	0.0500	"	"	"	"	"	"	
Sodium	21.0	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG08 0.5'
2404171-22 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.643	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.275	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.90		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG08 3'
2404171-23 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.08	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	52.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.68	0.400	"	"	"	"	"	"	
Lead	5.32	0.200	"	"	"	"	"	"	
Nickel	5.89	0.400	"	"	"	"	"	"	
Silver	0.0211	0.0200	"	"	"	"	"	"	
Zinc	21.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	82.6	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	6.27	0.0500	"	"	"	"	"	"	
Sodium	15.2	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG08 3'
2404171-23 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.434	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.5		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.208	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.94		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG08 5'
2404171-24 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.04	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	106	0.400	"	"	"	"	"	"	
Cadmium	0.258	0.200	"	"	"	"	"	"	
Copper	5.92	0.400	"	"	"	"	"	"	
Lead	6.57	0.200	"	"	"	"	"	"	
Nickel	7.77	0.400	"	"	"	"	"	"	
Silver	0.0381	0.0200	"	"	"	"	"	"	
Zinc	26.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	26.6	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	13.0	0.0500	"	"	"	"	"	"	
Sodium	71.7	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG08 5'
2404171-24 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.85	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.3		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.488	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.15		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG09 0.5'
2404171-25 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.77	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	49.9	0.400	"	"	"	"	"	"	
Cadmium	0.241	0.200	"	"	"	"	"	"	
Copper	10.3	0.400	"	"	"	"	"	"	
Lead	6.67	0.200	"	"	"	"	"	"	
Nickel	5.59	0.400	"	"	"	"	"	"	
Silver	0.0287	0.0200	"	"	"	"	"	"	
Zinc	33.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	101	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	32.1	0.0500	"	"	"	"	"	"	
Sodium	27.4	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG09 0.5'
2404171-25 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.608	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.314	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.88		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG09 3'
2404171-26 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	4.54	0.180	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	69.3	0.360	"	"	"	"	"	"	
Cadmium	0.199	0.180	"	"	"	"	"	"	
Copper	6.38	0.360	"	"	"	"	"	"	
Lead	6.11	0.180	"	"	"	"	"	"	
Nickel	7.45	0.360	"	"	"	"	"	"	
Silver	0.0190	0.0180	"	"	"	"	"	"	
Zinc	22.7	0.360	"	"	"	"	"	"	
Selenium	ND	0.234	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	75.9	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	6.88	0.0500	"	"	"	"	"	"	
Sodium	19.0	0.0500	"	"	"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG09 3'
2404171-26 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.560	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.1		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.237	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.78		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG09 5'
2404171-27 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHD0599	04/18/24	05/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.67	0.200	mg/kg dry	1	BHD0873	04/24/24	05/09/24	EPA 6020B	
Barium	108	0.400	"	"	"	"	"	"	
Cadmium	0.249	0.200	"	"	"	"	"	"	
Copper	6.64	0.400	"	"	"	"	"	"	
Lead	6.17	0.200	"	"	"	"	"	"	
Nickel	8.08	0.400	"	"	"	"	"	"	
Silver	0.0336	0.0200	"	"	"	"	"	"	
Zinc	28.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0673	04/19/24	04/19/24	EPA 7196A	

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

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	29.7	0.0500	mg/L dry	1	BHD0959	04/25/24	05/24/24	EPA 6020B	
Magnesium	17.2	0.0500	"	"	"	"	"	"	
Sodium	102	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

BKG09 5'
2404171-27 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.69	0.00100	units	1	BHE0793	05/24/24	05/24/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.3		%	1	BHD0533	04/17/24	04/17/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.674	0.0100	mmhos/cm	1	BHD0964	04/25/24	05/01/24	EPA 120.1	

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

Date Sampled: **04/09/24 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.99		pH Units	1	BHD0963	04/25/24	05/01/24	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0595 - EPA 3050B

Blank (BHD0595-BLK1)				Prepared: 04/18/24 Analyzed: 05/29/24						
Boron	ND	2.00	mg/L							
LCS (BHD0595-BS1)				Prepared: 04/18/24 Analyzed: 05/29/24						
Boron	5.39	2.00	mg/L	5.00		108	80-120			
Duplicate (BHD0595-DUP1)				Source: 2404171-01		Prepared: 04/18/24 Analyzed: 05/29/24				
Boron	0.672	2.00	mg/L		0.694			3.25	20	
Matrix Spike (BHD0595-MS1)				Source: 2404171-01		Prepared: 04/18/24 Analyzed: 05/29/24				
Boron	5.69	2.00	mg/L	5.00	0.694	100	75-125			
Matrix Spike Dup (BHD0595-MSD1)				Source: 2404171-01		Prepared: 04/18/24 Analyzed: 05/29/24				
Boron	5.88	2.00	mg/L	5.00	0.694	104	75-125	3.19	25	

Batch BHD0599 - EPA 3050B

Blank (BHD0599-BLK1)				Prepared: 04/18/24 Analyzed: 05/29/24						
Boron	ND	2.00	mg/L							
LCS (BHD0599-BS1)				Prepared: 04/18/24 Analyzed: 05/29/24						
Boron	5.23	2.00	mg/L	5.00		105	80-120			
Duplicate (BHD0599-DUP1)				Source: 2403128-10		Prepared: 04/18/24 Analyzed: 05/29/24				
Boron	0.0953	2.00	mg/L		0.129			30.1	20	QR-01
Matrix Spike (BHD0599-MS1)				Source: 2403128-10		Prepared: 04/18/24 Analyzed: 05/29/24				
Boron	5.82	2.00	mg/L	4.98	0.129	114	75-125			

Summit Scientific

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Fremont Environmental	Project: Noble - Rouse (BKG)	
PO Box 1289	Project Number: UWRWE-A3657-ABN	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	05/29/24 09:45

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

Summit Scientific

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

Batch BHD0599 - EPA 3050B

Matrix Spike Dup (BHD0599-MSD1)	Source: 2403128-10			Prepared: 04/18/24 Analyzed: 05/29/24					
Boron	6.09	2.00	mg/L	4.98	0.129	120	75-125	4.62	25

Summit Scientific

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Statistical Review



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0871 - EPA 3050B

Blank (BHD0871-BLK1)

Prepared: 04/24/24 Analyzed: 05/17/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BHD0871-BS1)

Prepared: 04/24/24 Analyzed: 05/17/24

Arsenic	36.1	0.200	mg/kg wet	40.0	90.2	80-120
Barium	38.0	0.400	"	40.0	95.1	80-120
Cadmium	1.91	0.200	"	2.00	95.3	80-120
Copper	37.4	0.400	"	40.0	93.6	80-120
Lead	19.3	0.200	"	20.0	96.5	80-120
Nickel	36.7	0.400	"	40.0	91.9	80-120
Silver	1.92	0.0200	"	2.00	95.8	80-120
Zinc	36.3	0.400	"	40.0	90.7	80-120
Selenium	3.70	0.260	"	4.00	92.4	80-120

Duplicate (BHD0871-DUP1)

Source: 2404171-01

Prepared: 04/24/24 Analyzed: 05/17/24

Arsenic	3.39	0.200	mg/kg dry	3.54	4.48	20
Barium	80.1	0.400	"	72.5	9.96	20
Cadmium	0.224	0.200	"	0.225	0.388	20
Copper	7.05	0.400	"	7.04	0.0305	20
Lead	7.21	0.200	"	7.10	1.56	20
Nickel	8.15	0.400	"	7.99	1.94	20
Silver	0.0523	0.0200	"	0.0527	0.784	20
Zinc	28.9	0.400	"	27.6	4.65	20
Selenium	0.244	0.260	"	0.243	0.129	20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0871 - EPA 3050B

Matrix Spike (BHD0871-MS1)

Source: 2404171-01

Prepared: 04/24/24 Analyzed: 05/17/24

Arsenic	45.7	0.200	mg/kg dry	45.0	3.54	93.5	75-125
Barium	119	0.400	"	45.0	72.5	103	75-125
Cadmium	2.49	0.200	"	2.25	0.225	101	75-125
Copper	49.8	0.400	"	45.0	7.04	94.9	75-125
Lead	28.8	0.200	"	22.5	7.10	96.6	75-125
Nickel	51.3	0.400	"	45.0	7.99	96.1	75-125
Silver	2.26	0.0200	"	2.25	0.0527	98.0	75-125
Zinc	73.2	0.400	"	45.0	27.6	101	75-125
Selenium	3.75	0.260	"	4.50	0.243	77.8	75-125

Matrix Spike Dup (BHD0871-MSD1)

Source: 2404171-01

Prepared: 04/24/24 Analyzed: 05/17/24

Arsenic	45.5	0.200	mg/kg dry	45.0	3.54	93.1	75-125	0.367	25
Barium	117	0.400	"	45.0	72.5	99.6	75-125	1.22	25
Cadmium	2.48	0.200	"	2.25	0.225	100	75-125	0.725	25
Copper	49.6	0.400	"	45.0	7.04	94.5	75-125	0.330	25
Lead	28.8	0.200	"	22.5	7.10	96.5	75-125	0.0484	25
Nickel	51.3	0.400	"	45.0	7.99	96.1	75-125	0.00878	25
Silver	2.23	0.0200	"	2.25	0.0527	96.6	75-125	1.41	25
Zinc	73.0	0.400	"	45.0	27.6	101	75-125	0.307	25
Selenium	3.63	0.260	"	4.50	0.243	75.3	75-125	3.10	25

Post Spike (BHD0871-PS1)

Source: 2404171-01

Prepared: 04/24/24 Analyzed: 05/17/24

Arsenic	108		ug/l	100	7.80	100	75-125
Barium	252		"	100	160	92.4	75-125
Cadmium	5.53		"	5.00	0.496	101	75-125
Copper	115		"	100	15.5	99.3	75-125
Lead	64.3		"	50.0	15.6	97.2	75-125
Nickel	117		"	100	17.6	99.1	75-125
Silver	5.11		"	5.00	0.116	99.8	75-125
Zinc	161		"	100	60.8	101	75-125
Selenium	9.32		"	10.0	0.536	87.8	75-125

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0873 - EPA 3050B

Blank (BHD0873-BLK1)

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BHD0873-BS1)

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	38.9	0.200	mg/kg wet	40.0	97.3	80-120
Barium	39.1	0.400	"	40.0	97.8	80-120
Cadmium	1.88	0.200	"	2.00	94.2	80-120
Copper	38.3	0.400	"	40.0	95.9	80-120
Lead	18.9	0.200	"	20.0	94.4	80-120
Nickel	38.1	0.400	"	40.0	95.2	80-120
Silver	1.87	0.0200	"	2.00	93.7	80-120
Zinc	38.1	0.400	"	40.0	95.3	80-120
Selenium	4.05	0.260	"	4.00	101	80-120

Duplicate (BHD0873-DUP1)

Source: 2404158-01

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	6.33	0.200	mg/kg dry	6.25	1.37	20	QR-04
Barium	125	0.400	"	234	60.6	20	
Cadmium	0.288	0.200	"	0.283	1.72	20	
Copper	15.7	0.400	"	15.3	2.92	20	
Lead	12.7	0.200	"	12.8	0.854	20	
Nickel	17.6	0.400	"	17.4	1.18	20	
Silver	0.0724	0.0200	"	0.0678	6.56	20	
Zinc	59.5	0.400	"	59.5	0.139	20	
Selenium	ND	0.260	"	ND		20	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0873 - EPA 3050B

Matrix Spike (BHD0873-MS1)

Source: 2404158-01

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	48.9	0.200	mg/kg dry	44.9	6.25	95.0	75-125			
Barium	154	0.400	"	44.9	234	NR	75-125			QM-07
Cadmium	2.43	0.200	"	2.24	0.283	95.7	75-125			
Copper	57.4	0.400	"	44.9	15.3	93.9	75-125			
Lead	32.4	0.200	"	22.4	12.8	87.4	75-125			
Nickel	60.4	0.400	"	44.9	17.4	95.8	75-125			
Silver	2.17	0.0200	"	2.24	0.0678	93.7	75-125			
Zinc	102	0.400	"	44.9	59.5	93.9	75-125			
Selenium	4.47	0.260	"	4.49	ND	99.6	75-125			

Matrix Spike Dup (BHD0873-MSD1)

Source: 2404158-01

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	48.3	0.200	mg/kg dry	44.9	6.25	93.6	75-125	1.28	25	
Barium	154	0.400	"	44.9	234	NR	75-125	0.0816	25	QM-07
Cadmium	2.47	0.200	"	2.24	0.283	97.4	75-125	1.61	25	
Copper	56.8	0.400	"	44.9	15.3	92.5	75-125	1.07	25	
Lead	32.4	0.200	"	22.4	12.8	87.4	75-125	0.0208	25	
Nickel	59.4	0.400	"	44.9	17.4	93.8	75-125	1.55	25	
Silver	2.17	0.0200	"	2.24	0.0678	93.7	75-125	0.0620	25	
Zinc	100	0.400	"	44.9	59.5	90.7	75-125	1.43	25	
Selenium	4.25	0.260	"	4.49	ND	94.6	75-125	5.21	25	

Post Spike (BHD0873-PS1)

Source: 2404158-01

Prepared: 04/24/24 Analyzed: 05/09/24

Arsenic	117		ug/l	100	13.4	104	75-125			
Barium	628		"	100	500	128	75-125			QM-07
Cadmium	5.61		"	5.00	0.607	100	75-125			
Copper	132		"	100	32.7	99.8	75-125			
Lead	75.9		"	50.0	27.4	97.0	75-125			
Nickel	138		"	100	37.2	101	75-125			
Silver	5.18		"	5.00	0.145	101	75-125			
Zinc	231		"	100	128	104	75-125			
Selenium	11.2		"	10.0	0.320	108	75-125			

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Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0672 - 3060A Mod

Blank (BHD0672-BLK1)					Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHD0672-BS1)					Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	25.0	0.30	mg/kg wet	25.0		99.8	80-120			
Duplicate (BHD0672-DUP1)					Source: 2404169-01 Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHD0672-MS1)					Source: 2404169-01 Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	27.7	0.30	mg/kg dry	28.1	ND	98.6	75-125			
Matrix Spike Dup (BHD0672-MSD1)					Source: 2404169-01 Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	27.7	0.30	mg/kg dry	28.1	ND	98.4	75-125	0.203	20	

Batch BHD0673 - 3060A Mod

Blank (BHD0673-BLK1)					Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BHD0673-BS1)					Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	25.0	0.30	mg/kg wet	25.0		100	80-120			
Duplicate (BHD0673-DUP1)					Source: 2404171-18 Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BHD0673-MS1)					Source: 2404171-18 Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	30.8	0.30	mg/kg dry	30.8	ND	100	75-125			

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Fremont Environmental	Project: Noble - Rouse (BKG)	
PO Box 1289	Project Number: UWRWE-A3657-ABN	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	05/29/24 09:45

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

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

Batch BHD0673 - 3060A Mod

Matrix Spike Dup (BHD0673-MSD1)	Source: 2404171-18			Prepared & Analyzed: 04/19/24					
Chromium, Hexavalent	30.7	0.30	mg/kg dry	30.8	ND	99.8	75-125	0.400	20

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PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0959 - General Preparation

Blank (BHD0959-BLK1)

Prepared: 04/25/24 Analyzed: 05/24/24

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

LCS (BHD0959-BS1)

Prepared: 04/25/24 Analyzed: 05/24/24

Calcium	5.03	0.0500	mg/L wet	5.00	101	70-130
Magnesium	4.83	0.0500	"	5.00	96.7	70-130
Sodium	4.90	0.0500	"	5.00	98.0	70-130

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)

Project Number: UWRWE-A3657-ABN

Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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

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

Batch BHD0533 - General Preparation

Duplicate (BHD0533-DUP1)			Source: 2404171-01			Prepared & Analyzed: 04/17/24					
% Solids	88.2		%			88.1			0.0557	20	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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 BHD0964 - General Preparation

Blank (BHD0964-BLK1)

Prepared: 04/25/24 Analyzed: 05/01/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHD0964-BS1)

Prepared: 04/25/24 Analyzed: 05/01/24

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHD0964-DUP1)

Source: 2404166-01

Prepared: 04/25/24 Analyzed: 05/01/24

Specific Conductance (EC) 0.317 0.0100 mmhos/cm 0.319 0.691 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)

Project Number: UWRWE-A3657-ABN

Project Manager: Paul Henchan

Reported:
05/29/24 09:45

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

Summit Scientific

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

Batch BHD0963 - General Preparation

LCS (BHD0963-BS1)

Prepared: 04/25/24 Analyzed: 05/01/24

pH	9.11	pH Units	9.18	99.2	95-105
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Duplicate (BHD0963-DUP1)

Source: 2404166-01

Prepared: 04/25/24 Analyzed: 05/01/24

pH	8.98	pH Units	8.98	0.00	20
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Rouse (BKG)
Project Number: UWRWE-A3657-ABN
Project Manager: Paul Henchan

Reported:
05/29/24 09:45

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
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