

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 18, 2024

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Gollner 027-07
Work Order #2407142

Enclosed are the results of analyses for samples received by Summit Scientific on 07/11/24 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Natalie Tessier For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN

Project Manager: Paul Henchan

Reported:
07/18/24 09:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01 SEP-5FT	2407142-01	Soil	07/10/24 15:15	07/11/24 16:30
FL02 WH-04FT	2407142-02	Soil	07/10/24 15:20	07/11/24 16:30

Summit Scientific

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

Lab ID	Page 1 of 1
2407142	

Client: Fremont Environmental	Send Data To: Project Manager: Paul Henehan	Send Invoice To: Company: Noble
Address:	E-Mail: Fremont Distribution List	Project Name/Location:
City/State/Zip:		AFE#:
Phone: 303-261-6246	Project Name: Gollner 027-07	PO/Billing Codes: UWRWF-A3585-ABW
Sampler Name: Stanley Gilbert	Project Number:	Contact: Mike Montoya

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested							Special Instructions				
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)		TDS, Chloride, Sulfate	HOLD		
1	FLO1 SEP-5FT	7/10/24	15:15	2			X			X				X	X	X	X	X				
2	FLO2 WH-4FT	7/10/24	15:20	2			X			X				X	X	X	X	X				
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by:	Date/Time: 7/10/24 17:20	Received by: Summit North	Date/Time: 7/10/24 17:20	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time: 7/11/24 11:30	Received by:	Date/Time: 7/11/24 11:30	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: 7.9	Corrected Temperature: 6	IR gun #:		Standard	X Field Turb.	
					HNO3 lot #:	

S₂

Sample Receipt Checklist

S2 Work Order# 2407142Client: Fremont Client Project ID: Gollner 027-07Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply) Air Soil/Solid Water Other Temp (°C) Thermometer #

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

AS 7/11/24
Custodian Printed Name Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Gollner 027-07
Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

FL01 SEP-5FT
2407142-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0341	07/12/24	07/13/24	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: **07/10/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0384	96.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0386	96.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0344	07/12/24	07/13/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.39	75.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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FL01 SEP-5FT
2407142-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0332	07/12/24	07/13/24	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: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0160	48.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0169	50.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0340	07/12/24	07/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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FL01 SEP-5FT
2407142-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.24	0.200	mg/kg dry	1	BHG0385	07/15/24	07/16/24	EPA 6020B
Barium	215	0.400	"	"	"	"	"	"
Cadmium	0.221	0.200	"	"	"	"	"	"
Copper	6.15	0.400	"	"	"	"	"	"
Lead	9.06	0.200	"	"	"	"	"	"
Nickel	3.73	0.400	"	"	"	"	"	"
Silver	0.0463	0.0200	"	"	"	"	"	"
Zinc	11.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0347	07/12/24	07/12/24	EPA 7196A	

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

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	15.9	0.0500	mg/L dry	1	BHG0339	07/12/24	07/16/24	EPA 6020B	
Magnesium	7.77	0.0500	"	"	"	"	"	"	
Sodium	18.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.925	0.00100	units	1	BHG0421	07/16/24	07/16/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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2407142-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.2	%	1	BHG0337	07/12/24	07/12/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.204	0.0100	mmhos/cm	1	BHG0357	07/12/24	07/15/24	EPA 120.1	

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

Date Sampled: **07/10/24 15:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.62		pH Units	1	BHG0358	07/12/24	07/15/24	EPA 9045D	

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07/18/24 09:19

FL02 WH-04FT
2407142-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0341	07/12/24	07/13/24	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: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0416	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0470	118 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0427	107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0344	07/12/24	07/13/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.7	85.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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FL02 WH-04FT
2407142-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0332	07/12/24	07/13/24	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: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0157	47.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0196	58.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0340	07/12/24	07/13/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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07/18/24 09:19

FL02 WH-04FT
2407142-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.41	0.180	mg/kg dry	1	BHG0346	07/12/24	07/17/24	EPA 6020B	
Barium	140	0.360	"	"	"	"	"	"	
Cadmium	0.288	0.180	"	"	"	"	"	"	
Copper	6.82	0.360	"	"	"	"	"	"	
Lead	11.0	0.180	"	"	"	"	"	"	
Nickel	7.57	0.360	"	"	"	"	"	"	
Silver	0.0475	0.0180	"	"	"	"	"	"	
Zinc	24.9	0.360	"	"	"	"	"	"	
Selenium	ND	0.234	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0347	07/12/24	07/12/24	EPA 7196A	

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

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	36.0	0.0500	mg/L dry	1	BHG0339	07/12/24	07/16/24	EPA 6020B	
Magnesium	6.77	0.0500	"	"	"	"	"	"	
Sodium	4.63	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.186	0.00100	units	1	BHG0421	07/16/24	07/16/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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FL02 WH-04FT
2407142-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	75.0	%	1	BHG0337	07/12/24	07/12/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.312	0.0100	mmhos/cm	1	BHG0357	07/12/24	07/15/24	EPA 120.1	

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

Date Sampled: **07/10/24 15:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BHG0358	07/12/24	07/15/24	EPA 9045D	

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Project Manager: Paul Henchan

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07/18/24 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0341 - EPA 5030 Soil MS

Blank (BHG0341-BLK1)

Prepared & Analyzed: 07/12/24

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0447		"	0.0400		112	50-150				
<i>Surrogate: Toluene-d8</i>	0.0402		"	0.0400		100	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0415		"	0.0400		104	50-150				

LCS (BHG0341-BS1)

Prepared & Analyzed: 07/12/24

Benzene	0.101	0.0020	mg/kg	0.100		101	70-130				
Toluene	0.117	0.0050	"	0.100		117	70-130				
Ethylbenzene	0.114	0.0050	"	0.100		114	70-130				
m,p-Xylene	0.226	0.010	"	0.200		113	70-130				
o-Xylene	0.110	0.0050	"	0.100		110	70-130				
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130				
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130				
Naphthalene	0.0960	0.0038	"	0.100		96.0	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0404		"	0.0400		101	50-150				
<i>Surrogate: Toluene-d8</i>	0.0411		"	0.0400		103	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0398		"	0.0400		99.4	50-150				

Matrix Spike (BHG0341-MS1)

Source: 2407123-01

Prepared & Analyzed: 07/12/24

Benzene	0.0930	0.0020	mg/kg	0.100	ND	93.0	70-130				
Toluene	0.106	0.0050	"	0.100	ND	106	70-130				
Ethylbenzene	0.0985	0.0050	"	0.100	ND	98.5	70-130				
m,p-Xylene	0.193	0.010	"	0.200	ND	96.3	70-130				
o-Xylene	0.0977	0.0050	"	0.100	ND	97.7	70-130				
1,2,4-Trimethylbenzene	0.0891	0.0050	"	0.100	ND	89.1	70-130				
1,3,5-Trimethylbenzene	0.0890	0.0050	"	0.100	ND	89.0	70-130				
Naphthalene	0.0870	0.0038	"	0.100	ND	87.0	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0466		"	0.0400		116	50-150				
<i>Surrogate: Toluene-d8</i>	0.0402		"	0.0400		101	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0397		"	0.0400		99.2	50-150				

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Gollner 027-07
 Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BHG0341 - EPA 5030 Soil MS

Matrix Spike Dup (BHG0341-MSD1)	Source: 2407123-01			Prepared & Analyzed: 07/12/24						
Benzene	0.0895	0.0020	mg/kg	0.100	ND	89.5	70-130	3.91	30	
Toluene	0.119	0.0050	"	0.100	ND	119	70-130	11.3	30	
Ethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130	13.7	30	
m,p-Xylene	0.221	0.010	"	0.200	ND	110	70-130	13.5	30	
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130	8.81	30	
1,2,4-Trimethylbenzene	0.0987	0.0050	"	0.100	ND	98.7	70-130	10.3	30	
1,3,5-Trimethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130	12.0	30	
Naphthalene	0.0878	0.0038	"	0.100	ND	87.8	70-130	0.927	30	
Surrogate: 1,2-Dichloroethane-d4	0.0354		"	0.0400		88.5	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.1	50-150			

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Project: Noble - Gollner 027-07
 Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHG0344 - EPA 3550A

Blank (BHG0344-BLK1)

Prepared: 07/12/24 Analyzed: 07/13/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		93.0	30-150				

LCS (BHG0344-BS1)

Prepared: 07/12/24 Analyzed: 07/13/24

C10-C28 (DRO)	558	50	mg/kg	500		112	70-130				
Surrogate: <i>o</i> -Terphenyl	13.7		"	12.5		110	30-150				

Matrix Spike (BHG0344-MS1)

Source: 2407123-01

Prepared: 07/12/24 Analyzed: 07/13/24

C10-C28 (DRO)	500	50	mg/kg	500	ND	100	70-130				
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		92.7	30-150				

Matrix Spike Dup (BHG0344-MSD1)

Source: 2407123-01

Prepared: 07/12/24 Analyzed: 07/13/24

C10-C28 (DRO)	423	50	mg/kg	500	ND	84.6	70-130	16.8	20		
Surrogate: <i>o</i> -Terphenyl	9.91		"	12.5		79.3	30-150				

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Project: Noble - Gollner 027-07
Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

PAH by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch BHG0332 - EPA 5030 Soil MS

Blank (BHG0332-BLK1)

Prepared & Analyzed: 07/12/24

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0287</i>		<i>"</i>	<i>0.0333</i>		<i>86.1</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0302</i>		<i>"</i>	<i>0.0333</i>		<i>90.5</i>	<i>40-150</i>			

LCS (BHG0332-BS1)

Prepared & Analyzed: 07/12/24

Acenaphthene	0.0234	0.00500	mg/kg	0.0333		70.2	31-137			
Anthracene	0.0233	0.00500	"	0.0333		69.9	30-120			
Benzo (a) anthracene	0.0249	0.00500	"	0.0333		74.7	30-120			
Benzo (a) pyrene	0.0236	0.00500	"	0.0333		70.8	30-120			
Benzo (b) fluoranthene	0.0236	0.00500	"	0.0333		70.7	30-120			
Benzo (k) fluoranthene	0.0227	0.00500	"	0.0333		68.1	30-120			
Chrysene	0.0229	0.00500	"	0.0333		68.8	30-120			
Dibenz (a,h) anthracene	0.0210	0.00500	"	0.0333		63.0	30-120			
Fluoranthene	0.0226	0.00500	"	0.0333		67.9	30-120			
Fluorene	0.0233	0.00500	"	0.0333		69.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0171	0.00500	"	0.0333		51.3	30-120			
Pyrene	0.0242	0.00500	"	0.0333		72.7	35-142			
1-Methylnaphthalene	0.0206	0.00500	"	0.0333		61.8	35-142			
2-Methylnaphthalene	0.0239	0.00500	"	0.0333		71.6	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0217</i>		<i>"</i>	<i>0.0333</i>		<i>65.1</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0233</i>		<i>"</i>	<i>0.0333</i>		<i>69.9</i>	<i>40-150</i>			

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Wellington CO, 80549

Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0332 - EPA 5030 Soil MS

Matrix Spike (BHG0332-MS1)	Source: 2407139-01			Prepared & Analyzed: 07/12/24						
Acenaphthene	0.0203	0.00500	mg/kg	0.0333	ND	60.8	31-137			
Anthracene	0.0194	0.00500	"	0.0333	ND	58.1	30-120			
Benzo (a) anthracene	0.0206	0.00500	"	0.0333	ND	61.8	30-120			
Benzo (a) pyrene	0.0190	0.00500	"	0.0333	ND	57.1	30-120			
Benzo (b) fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Benzo (k) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.5	30-120			
Chrysene	0.0185	0.00500	"	0.0333	ND	55.5	30-120			
Dibenz (a,h) anthracene	0.0195	0.00500	"	0.0333	ND	58.5	30-120			
Fluoranthene	0.0194	0.00500	"	0.0333	ND	58.1	30-120			
Fluorene	0.0196	0.00500	"	0.0333	ND	58.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0156	0.00500	"	0.0333	ND	46.8	30-120			
Pyrene	0.0198	0.00500	"	0.0333	ND	59.5	35-142			
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.7	15-130			
2-Methylnaphthalene	0.0180	0.00500	"	0.0333	ND	54.1	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0167</i>		<i>"</i>	<i>0.0333</i>		<i>50.0</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0207</i>		<i>"</i>	<i>0.0333</i>		<i>62.1</i>	<i>40-150</i>			

Matrix Spike Dup (BHG0332-MSD1)	Source: 2407139-01			Prepared & Analyzed: 07/12/24						
Acenaphthene	0.0221	0.00500	mg/kg	0.0333	ND	66.3	31-137	8.68	30	
Anthracene	0.0208	0.00500	"	0.0333	ND	62.5	30-120	7.29	30	
Benzo (a) anthracene	0.0227	0.00500	"	0.0333	ND	68.0	30-120	9.57	30	
Benzo (a) pyrene	0.0208	0.00500	"	0.0333	ND	62.4	30-120	8.81	30	
Benzo (b) fluoranthene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	9.03	30	
Benzo (k) fluoranthene	0.0187	0.00500	"	0.0333	ND	56.1	30-120	6.66	30	
Chrysene	0.0206	0.00500	"	0.0333	ND	61.7	30-120	10.6	30	
Dibenz (a,h) anthracene	0.0208	0.00500	"	0.0333	ND	62.5	30-120	6.63	30	
Fluoranthene	0.0216	0.00500	"	0.0333	ND	64.7	30-120	10.7	30	
Fluorene	0.0217	0.00500	"	0.0333	ND	65.0	30-120	10.0	30	
Indeno (1,2,3-cd) pyrene	0.0169	0.00500	"	0.0333	ND	50.7	30-120	8.10	30	
Pyrene	0.0223	0.00500	"	0.0333	ND	66.9	35-142	11.7	30	
1-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.7	15-130	16.6	50	
2-Methylnaphthalene	0.0204	0.00500	"	0.0333	ND	61.1	15-130	12.2	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0197</i>		<i>"</i>	<i>0.0333</i>		<i>59.0</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0227</i>		<i>"</i>	<i>0.0333</i>		<i>68.2</i>	<i>40-150</i>			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Gollner 027-07
 Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

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

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

Batch BHG0340 - EPA 3050B

Blank (BHG0340-BLK1)

Prepared: 07/12/24 Analyzed: 07/13/24

Boron ND 2.00 mg/L

LCS (BHG0340-BS1)

Prepared: 07/12/24 Analyzed: 07/13/24

Boron 4.98 2.00 mg/L 5.00 99.6 80-120

Duplicate (BHG0340-DUP1)

Source: 2407137-01

Prepared: 07/12/24 Analyzed: 07/13/24

Boron 0.0521 2.00 mg/L 0.106 67.8 20 QR-01

Matrix Spike (BHG0340-MS1)

Source: 2407137-01

Prepared: 07/12/24 Analyzed: 07/13/24

Boron 5.08 2.00 mg/L 5.02 0.106 99.0 75-125

Matrix Spike Dup (BHG0340-MSD1)

Source: 2407137-01

Prepared: 07/12/24 Analyzed: 07/13/24

Boron 5.34 2.00 mg/L 5.02 0.106 104 75-125 4.96 25

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Project: Noble - Gollner 027-07
Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0346 - EPA 3050B

Blank (BHG0346-BLK1)

Prepared: 07/12/24 Analyzed: 07/17/24

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 (BHG0346-BS1)

Prepared: 07/12/24 Analyzed: 07/17/24

Arsenic	38.6	0.200	mg/kg wet	40.0	96.4	80-120
Barium	39.0	0.400	"	40.0	97.5	80-120
Cadmium	1.93	0.200	"	2.00	96.4	80-120
Copper	40.3	0.400	"	40.0	101	80-120
Lead	19.1	0.200	"	20.0	95.4	80-120
Nickel	40.4	0.400	"	40.0	101	80-120
Silver	1.92	0.0200	"	2.00	96.0	80-120
Zinc	39.5	0.400	"	40.0	98.7	80-120
Selenium	3.71	0.260	"	4.00	92.7	80-120

Duplicate (BHG0346-DUP1)

Source: 2407142-02

Prepared: 07/12/24 Analyzed: 07/17/24

Arsenic	5.83	0.200	mg/kg dry	5.41	7.40	20	
Barium	226	0.400	"	140	47.2	20	QR-03
Cadmium	0.322	0.200	"	0.288	11.1	20	
Copper	6.78	0.400	"	6.82	0.662	20	
Lead	11.0	0.200	"	11.0	0.160	20	
Nickel	7.85	0.400	"	7.57	3.63	20	
Silver	0.0555	0.0200	"	0.0475	15.5	20	
Zinc	25.5	0.400	"	24.9	2.68	20	
Selenium	ND	0.260	"	ND		20	

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Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0346 - EPA 3050B

Matrix Spike (BHG0346-MS1)

Source: 2407142-02

Prepared: 07/12/24 Analyzed: 07/17/24

Arsenic	55.7	0.200	mg/kg dry	53.3	5.41	94.3	75-125			
Barium	266	0.400	"	53.3	140	237	75-125			QM-07
Cadmium	2.87	0.200	"	2.67	0.288	97.0	75-125			
Copper	32.0	0.400	"	53.3	6.82	47.2	75-125			QM-05
Lead	35.8	0.200	"	26.7	11.0	92.8	75-125			
Nickel	33.1	0.400	"	53.3	7.57	47.8	75-125			QM-05
Silver	2.54	0.0200	"	2.67	0.0475	93.4	75-125			
Zinc	51.5	0.400	"	53.3	24.9	49.9	75-125			QM-05
Selenium	3.78	0.260	"	5.33	ND	70.8	75-125			QM-07

Matrix Spike Dup (BHG0346-MSD1)

Source: 2407142-02

Prepared: 07/12/24 Analyzed: 07/17/24

Arsenic	53.5	0.200	mg/kg dry	50.9	5.41	94.5	75-125	4.00	25	
Barium	213	0.400	"	50.9	140	145	75-125	21.8	25	QM-07
Cadmium	2.69	0.200	"	2.54	0.288	94.3	75-125	6.69	25	
Copper	30.4	0.400	"	50.9	6.82	46.3	75-125	5.14	25	QM-05
Lead	34.5	0.200	"	25.4	11.0	92.5	75-125	3.44	25	
Nickel	31.6	0.400	"	50.9	7.57	47.2	75-125	4.63	25	QM-05
Silver	2.39	0.0200	"	2.54	0.0475	92.3	75-125	5.85	25	
Zinc	49.7	0.400	"	50.9	24.9	48.9	75-125	3.47	25	QM-05
Selenium	3.44	0.260	"	5.09	ND	67.5	75-125	9.41	25	QM-07

Post Spike (BHG0346-PS1)

Source: 2407142-02

Prepared: 07/12/24 Analyzed: 07/17/24

Arsenic	113		ug/l	100	10.1	103	75-125			
Barium	381		"	100	262	119	75-125			
Cadmium	5.62		"	5.00	0.540	102	75-125			
Copper	61.8		"	100	12.8	49.0	75-125			QM-01
Lead	71.0		"	50.0	20.6	101	75-125			
Nickel	63.9		"	100	14.2	49.7	75-125			QM-01
Silver	5.11		"	5.00	0.0890	100	75-125			
Zinc	99.4		"	100	46.6	52.8	75-125			QM-01
Selenium	8.46		"	10.0	0.205	82.5	75-125			

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Wellington CO, 80549

Project: Noble - Gollner 027-07
Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0385 - EPA 3050B

Blank (BHG0385-BLK1)

Prepared & Analyzed: 07/15/24

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	"						

LCS (BHG0385-BS1)

Prepared & Analyzed: 07/15/24

Arsenic	44.2	0.200	mg/kg wet	40.0	110	80-120
Barium	36.3	0.400	"	40.0	90.8	80-120
Cadmium	1.77	0.200	"	2.00	88.5	80-120
Copper	40.3	0.400	"	40.0	101	80-120
Lead	17.9	0.200	"	20.0	89.6	80-120
Nickel	46.4	0.400	"	40.0	116	80-120
Silver	1.83	0.0200	"	2.00	91.4	80-120
Zinc	42.9	0.400	"	40.0	107	80-120
Selenium	3.97	0.260	"	4.00	99.3	80-120

Duplicate (BHG0385-DUP1)

Source: 2405229-01

Prepared & Analyzed: 07/15/24

Arsenic	0.315	0.200	mg/kg dry	0.342	8.23	20
Barium	34.6	0.400	"	37.5	8.16	20
Cadmium	0.0504	0.200	"	0.0549	8.70	20
Copper	2.10	0.400	"	2.05	2.40	20
Lead	3.08	0.200	"	3.16	2.68	20
Nickel	1.20	0.400	"	1.26	4.53	20
Silver	0.0108	0.0200	"	0.00916	16.7	20
Zinc	4.94	0.400	"	5.21	5.26	20
Selenium	ND	0.260	"	ND		20

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0385 - EPA 3050B

Matrix Spike (BHG0385-MS1)

Source: 2405229-01

Prepared & Analyzed: 07/15/24

Arsenic	17.4	0.200	mg/kg dry	43.2	0.342	39.4	75-125				QM-05
Barium	69.0	0.400	"	43.2	37.5	72.9	75-125				QM-07
Cadmium	1.95	0.200	"	2.16	0.0549	87.7	75-125				
Copper	33.1	0.400	"	43.2	2.05	71.9	75-125				QM-07
Lead	20.7	0.200	"	21.6	3.16	81.0	75-125				
Nickel	19.0	0.400	"	43.2	1.26	41.1	75-125				QM-05
Silver	1.90	0.0200	"	2.16	0.00916	87.4	75-125				
Zinc	21.6	0.400	"	43.2	5.21	37.9	75-125				QM-05
Selenium	3.58	0.260	"	4.32	ND	82.9	75-125				

Matrix Spike Dup (BHG0385-MSD1)

Source: 2405229-01

Prepared & Analyzed: 07/15/24

Arsenic	18.2	0.200	mg/kg dry	43.2	0.342	41.4	75-125	4.89	25		QM-05
Barium	79.0	0.400	"	43.2	37.5	96.0	75-125	13.4	25		
Cadmium	2.02	0.200	"	2.16	0.0549	91.0	75-125	3.61	25		
Copper	35.7	0.400	"	43.2	2.05	78.0	75-125	7.65	25		
Lead	21.6	0.200	"	21.6	3.16	85.4	75-125	4.50	25		
Nickel	19.9	0.400	"	43.2	1.26	43.3	75-125	4.80	25		QM-05
Silver	1.97	0.0200	"	2.16	0.00916	90.7	75-125	3.69	25		
Zinc	23.0	0.400	"	43.2	5.21	41.2	75-125	6.53	25		QM-05
Selenium	3.74	0.260	"	4.32	ND	86.6	75-125	4.28	25		

Post Spike (BHG0385-PS1)

Source: 2405229-01

Prepared: 07/15/24 Analyzed: 07/16/24

Arsenic	42.4		ug/l	100	0.750	41.6	75-125				QM-01
Barium	191		"	100	82.2	109	75-125				
Cadmium	5.02		"	5.00	0.120	98.0	75-125				
Copper	80.7		"	100	4.50	76.2	75-125				
Lead	52.2		"	50.0	6.94	90.5	75-125				
Nickel	45.4		"	100	2.76	42.6	75-125				QM-01
Silver	4.88		"	5.00	0.0201	97.2	75-125				
Zinc	52.1		"	100	11.4	40.7	75-125				QM-01
Selenium	9.14		"	10.0	0.0365	91.0	75-125				

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Project: Noble - Gollner 027-07
 Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHG0347 - 3060A Mod

Blank (BHG0347-BLK1)

Prepared & Analyzed: 07/12/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHG0347-BS1)

Prepared & Analyzed: 07/12/24

Chromium, Hexavalent 24.2 0.30 mg/kg wet 25.0 96.8 80-120

Duplicate (BHG0347-DUP1)

Source: 2407123-01

Prepared & Analyzed: 07/12/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHG0347-MS1)

Source: 2407123-01

Prepared & Analyzed: 07/12/24

Chromium, Hexavalent 24.4 0.30 mg/kg dry 25.6 ND 95.2 75-125

Matrix Spike Dup (BHG0347-MSD1)

Source: 2407123-01

Prepared & Analyzed: 07/12/24

Chromium, Hexavalent 24.8 0.30 mg/kg dry 25.6 ND 96.8 75-125 1.67 20

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Fremont Environmental
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Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

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

Summit Scientific

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

Batch BHG0339 - General Preparation

Blank (BHG0339-BLK1)

Prepared: 07/12/24 Analyzed: 07/16/24

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

LCS (BHG0339-BS1)

Prepared: 07/12/24 Analyzed: 07/16/24

Calcium	5.07	0.0500	mg/L wet	5.00	101	70-130				
Magnesium	5.47	0.0500	"	5.00	109	70-130				
Sodium	5.61	0.0500	"	5.00	112	70-130				

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Fremont Environmental
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Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

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

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

Batch BHG0337 - General Preparation

Duplicate (BHG0337-DUP1)

Source: 2406108-04

Prepared & Analyzed: 07/12/24

% Solids	84.3		%		85.1			0.905	20	
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Fremont Environmental
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Project: Noble - Gollner 027-07
 Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

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

Summit Scientific

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

Batch BHG0357 - General Preparation

Blank (BHG0357-BLK1)

Prepared: 07/12/24 Analyzed: 07/15/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0357-BS1)

Prepared: 07/12/24 Analyzed: 07/15/24

Specific Conductance (EC) 0.151 0.0100 mmhos/cm 0.150 101 95-105

Duplicate (BHG0357-DUP1)

Source: 2407142-01

Prepared: 07/12/24 Analyzed: 07/15/24

Specific Conductance (EC) 0.202 0.0100 mmhos/cm 0.204 1.28 20

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Fremont Environmental
 PO Box 1289
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Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
 Project Manager: Paul Henchan

Reported:
 07/18/24 09:19

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

Summit Scientific

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

Batch BHG0358 - General Preparation

LCS (BHG0358-BS1)

Prepared: 07/12/24 Analyzed: 07/15/24

pH	9.13	pH Units	9.18	99.5	95-105
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Duplicate (BHG0358-DUP1)

Source: 2407142-01

Prepared: 07/12/24 Analyzed: 07/15/24

pH	8.51	pH Units	8.62	1.28	20
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Gollner 027-07

Project Number: UWRWE-A3585-ABN
Project Manager: Paul Henchan

Reported:
07/18/24 09:19

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference