

Flowline Closure Checklist

ECMC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
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Site Name & ECMC Facility Number: NEI C18-21D	Date: 9/14/2023	Remediation Project #: 30472
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Associated Wells:	Age of Site:	Number of Photos Attached: 1
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Starting point: (GPS coordinates and descriptions)
40.311872 / -104.594256

End point: (GPS coordinates and descriptions)
40.311793 / -104.595729

USCS Soil Type: SW	Estimated Depth to Groundwater: >3'
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Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
None observed

Flowlines

Flowline type	Oil / Gas / Water			
Depth	3'			
Age				
Length	412'			
Construction Material	steel			
Were flowlines pulled?	yes			
Visual Integrity of lines	good			
Visual impacts if trenched	none observed			
PID Readings if trenched	0.4			
Sample taken? Location/Sample ID#	yes, see below			
Photo Number(s)	1			

Other observations regarding on location flowlines:
A sample was taken along the flowline path (FL01-C@3').
The separator was sampled during decommissioning of the associated facility, refer to REM #30380.

Summary

Was impacted soil identified? No	
Total number of samples field screened: 1	Total number of samples collected: 1
Highest PID Reading: 0.4	Total number of samples submitted to lab for analysis: 1
If more than 10 cubic yards of impacted soil were observed:	
Vertical extent:	Estimated spill volume:
Lateral extent:	Volume of soil removed:
Is additional investigation required?	
Was groundwater encountered during the investigation? No	
Measured depth to groundwater:	Was remedial groundwater removal conducted?
Date Groundwater was encountered:	Commencement date of removal:
Sheen on groundwater?	Volume of groundwater removed prior to sampling:
Free product observed?	Volume of groundwater removed post sampling:
Total number of samples collected:	Total Volume of groundwater removed:
Total number of samples submitted to lab for analysis:	

Photographic Log



Equipment ID: FL01-C@3'		Equipment Type: Flowline		Equipment ID:		Equipment Type:	
Material: Steel		Volume:		Material:		Volume:	
Contents: Oil/Water/Gas		Contents:		Material:		Volume:	
Notes/Conditions: excavation pit for NEI C18-21D, NEI PC C18-20D and NEI C18-32 D. yellow box denotes sample location for NEI C18-21D				Notes/Conditions:			

TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. - NEI C18-21D

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude ¹	Longitude	PDOP
FL01-C@3'	09/14/23	0.4	No Staining	No Odor	Lab	40.311848	-104.595248	0.9

Notes:

PID = Photoionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

1.) Latitude and longitude coordinates will be provided in decimal degrees with an accuracy and precision of 5 decimals of a degree using the North American Datum ("NAD") of 1983

TABLE 2
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - NEI C18-21D

Soil Sample ID	Date	¹ Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^{1,2}		1.2	490	5.8	58	30	27	2	500			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL ^{1,2,3}		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500			0.55	6	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01-C@3'	09/14/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<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

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
SSR ^{1,2}		6 - 8.3	<6	<4mmhos/cm	2
FL01-C@3'	09/14/23	7.82	0.406	0.194	0.128

Sample ID	Date Sampled	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)
Residential SSL ^{1,2}		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater SSL ^{1,2,3}		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
FL01-C@3'	09/14/23	1.56	38.0	<0.200	<0.30	3.69	4.83	3.37	<0.260	0.0430	13.4

Notes:

- Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) and Soil Suitability for Reclamation (SSR) standards referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

ECMC = Energy and Carbon Management Commission

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

mmhos/cm = Millmhos per centimeter

mg/L = Milligrams per liter

< = Analytical result is less than the indicated laboratory reporting limit

Highlighted results are equal to or exceed the ECMC Table 915-1 standard

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benz(a) = Benzo(a)anthracene

Benzo(b) = Benzo(b)fluoranthene

Benzo(k) = Benzo(k)fluoranthene

Benzo(a) = Benzo(a)pyrene

A,H = Dibenzo(a,h)anthracene

1,2,3-CD = Indeno(1,2,3-cd)pyrene

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene



FL01-C@3'
 (09/14/2023)
 PID = 0.4 ppm
 Arsenic = **1.56** mg/kg

- Legend**
- - - Flowline Location
 - + Soil Sample Location – Field Screen (Collected via Trimble GPS)
 - + Soil Sample Location – Lab Analyzed (Collected via Trimble GPS)

- Notes**
- 1) All locations are approximate unless otherwise noted.
 - 2) Buried infrastructure has been spatially projected.
 - 3) Analytical results below laboratory detection limits or within compliance of ECMC Table 915-1 not shown.
 - 4) Concentration in exceedance of ECMC table 915-1 soil standards indicated in **RED**.

GPS – Global Positioning System
 mg/kg – Milligrams per kilogram
 ppm – parts per million
 PID – Photoionization Detector

0 ft. 40 ft. 80 ft.

Image Source: Google Earth; Google 2020

DATE:	10/12/2023
DESIGNED BY:	JW
DRAWN BY:	EH



TASMAN
 GEOSCIENCES

Tasman Geosciences, Inc.
 6855 W 119th Avenue
 Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
NEI C18-21D
 NESW, Section 18, Township 4 North, Range 64 West
 Weld County, Colorado

Flowline Closure & Soil
 Analytical Results Map
 (09/14/2023)

FIGURE
1

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 26, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

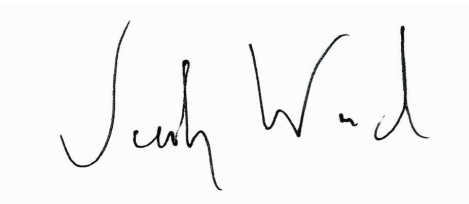
Broomfield, CO 80020

RE: Noble - NEI C 18-21D

Work Order #2309252

Enclosed are the results of analyses for samples received by Summit Scientific on 09/14/23 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D

Project Number: UWRWE-A2563-ABN

Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-C@3'	2309252-01	Soil	09/14/23 13:00	09/14/23 18:00

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.

Summit Scientific

S₂

2309252

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: Noble / Tasman Geosciences Project Manager: Jake Whritenour, Invoice:
Address: 6855 W. 119th Ave. E-Mail: Jwhritenour@tasman-geo.com
City/State/Zip: Broomfield / CO/ 80020
Phone: 231-292-2576 Project Name: NE1 C18-21D Miquel Barron
Sampler Name: Elyse Hossink Project Number: UWRWE-A 2563-ABW

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	
1	FLØ1-C @ 3'	9/14/23	1300	2															pH, EC, SAR by saturated paste
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: Elyse Hossink Elyse Hossink	Date/Time: 1530 9/14/23	Received by: Tasman's Lock Box	Date/Time: 1530 9/14/23	Turn Around Time (Check) ___ Same Day 72 hours ___ 24 hours <input checked="" type="checkbox"/> Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: 85 Samples Intact: <input checked="" type="checkbox"/> Yes No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 91423 1800	Received by: [Signature]	Date/Time: 91423 1800		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

Sample Receipt Checklist

S2 Work Order# 2309252

Client: Nobel Casman

Client Project ID: NE1 C18-21D

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

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

Temp (°C)

Thermometer #

	Yes	No	N/A	Comments (If any)
If samples require cooling, is the temperature < 6°C? ⁽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"/>	ON ICE
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

AS
Custodian Printed Name

9/14/23
Date/Time

23 23



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

FL01-C@3'
2309252-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGI0468	09/15/23	09/16/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0327	81.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0375	93.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGI0469	09/15/23	09/16/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.0	95.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
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Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

FL01-C@3'
2309252-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0482	09/18/23	09/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0186	55.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0206	61.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.128	0.0100	mg/L	1	BGI0505	09/18/23	09/19/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

FL01-C@3'
2309252-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.56	0.200	mg/kg dry	1	BGI0488	09/18/23	09/20/23	EPA 6020B
Barium	38.0	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.69	0.400	"	"	"	"	"	"
Lead	4.83	0.200	"	"	"	"	"	"
Nickel	3.37	0.400	"	"	"	"	"	"
Silver	0.0430	0.0200	"	"	"	"	"	"
Zinc	13.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGI0454	09/15/23	09/18/23	EPA 7196A	

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

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.3	0.0532	mg/L dry	1	BGI0557	09/19/23	09/20/23	EPA 6020B	
Magnesium	5.80	0.0532	"	"	"	"	"	"	
Sodium	7.78	0.0532	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.406	0.00100	units	1	BGI0668	09/21/23	09/21/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

FL01-C@3'
2309252-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.9		%	1	BGI0502	09/18/23	09/18/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.194	0.0100	mmhos/cm	1	BGI0586	09/20/23	09/20/23	EPA 120.1	

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

Date Sampled: **09/14/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.82		pH Units	1	BGI0588	09/20/23	09/20/23	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGI0468 - EPA 5030 Soil MS

Blank (BGI0468-BLK1)

Prepared: 09/15/23 Analyzed: 09/16/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0334		"	0.0400		83.4	50-150			
<i>Surrogate: Toluene-d8</i>	0.0409		"	0.0400		102	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0357		"	0.0400		89.2	50-150			

LCS (BGI0468-BS1)

Prepared: 09/15/23 Analyzed: 09/16/23

Benzene	0.120	0.0020	mg/kg	0.100	120	70-130				
Toluene	0.105	0.0050	"	0.100	105	70-130				
Ethylbenzene	0.109	0.0050	"	0.100	109	70-130				
m,p-Xylene	0.207	0.010	"	0.200	103	70-130				
o-Xylene	0.0986	0.0050	"	0.100	98.6	70-130				
1,2,4-Trimethylbenzene	0.0953	0.0050	"	0.100	95.3	70-130				
1,3,5-Trimethylbenzene	0.0978	0.0050	"	0.100	97.8	70-130				
Naphthalene	0.0798	0.0038	"	0.100	79.8	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0388		"	0.0400	97.0	50-150				
<i>Surrogate: Toluene-d8</i>	0.0399		"	0.0400	99.8	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0388		"	0.0400	97.0	50-150				

Matrix Spike (BGI0468-MS1)

Source: 2309251-01

Prepared: 09/15/23 Analyzed: 09/16/23

Benzene	0.107	0.0020	mg/kg	0.100	ND	107	70-130			
Toluene	0.0866	0.0050	"	0.100	ND	86.6	70-130			
Ethylbenzene	0.0838	0.0050	"	0.100	ND	83.8	70-130			
m,p-Xylene	0.156	0.010	"	0.200	ND	77.9	70-130			
o-Xylene	0.0771	0.0050	"	0.100	ND	77.1	70-130			
1,2,4-Trimethylbenzene	0.0936	0.0050	"	0.100	ND	93.6	70-130			
1,3,5-Trimethylbenzene	0.0971	0.0050	"	0.100	ND	97.1	70-130			
Naphthalene	0.105	0.0038	"	0.100	ND	105	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0376		"	0.0400	94.0	50-150				
<i>Surrogate: Toluene-d8</i>	0.0394		"	0.0400	98.4	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0383		"	0.0400	95.8	50-150				

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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

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

Batch BGI0468 - EPA 5030 Soil MS

Matrix Spike Dup (BGI0468-MSD1)	Source: 2309251-01			Prepared: 09/15/23 Analyzed: 09/16/23						
Benzene	0.107	0.0020	mg/kg	0.100	ND	107	70-130	0.0562	30	
Toluene	0.0867	0.0050	"	0.100	ND	86.7	70-130	0.173	30	
Ethylbenzene	0.0863	0.0050	"	0.100	ND	86.3	70-130	3.00	30	
m,p-Xylene	0.161	0.010	"	0.200	ND	80.5	70-130	3.32	30	
o-Xylene	0.0790	0.0050	"	0.100	ND	79.0	70-130	2.42	30	
1,2,4-Trimethylbenzene	0.0975	0.0050	"	0.100	ND	97.5	70-130	4.14	30	
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	3.61	30	
Naphthalene	0.105	0.0038	"	0.100	ND	105	70-130	0.857	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0347</i>		<i>"</i>	<i>0.0400</i>		<i>86.7</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0389</i>		<i>"</i>	<i>0.0400</i>		<i>97.2</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0384</i>		<i>"</i>	<i>0.0400</i>		<i>95.9</i>	<i>50-150</i>			

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Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0469 - EPA 3550A

Blank (BGI0469-BLK1)

Prepared: 09/15/23 Analyzed: 09/16/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.4		"	12.5		116		30-150			

LCS (BGI0469-BS1)

Prepared: 09/15/23 Analyzed: 09/16/23

C10-C28 (DRO)	640	50	mg/kg	500		128		70-130			
Surrogate: <i>o</i> -Terphenyl	6.03		"	12.5		48.2		30-150			

Matrix Spike (BGI0469-MS1)

Source: 2309251-01

Prepared: 09/15/23 Analyzed: 09/16/23

C10-C28 (DRO)	691	50	mg/kg	500	8.76	136		70-130			QM-07
Surrogate: <i>o</i> -Terphenyl	8.52		"	12.5		68.2		30-150			

Matrix Spike Dup (BGI0469-MSD1)

Source: 2309251-01

Prepared: 09/15/23 Analyzed: 09/16/23

C10-C28 (DRO)	589	50	mg/kg	500	8.76	116		70-130	15.9	20	
Surrogate: <i>o</i> -Terphenyl	6.29		"	12.5		50.4		30-150			

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0482 - EPA 5030 Soil MS

Blank (BGI0482-BLK1)

Prepared & Analyzed: 09/18/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0397</i>		"	<i>0.0333</i>		<i>119</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0260</i>		"	<i>0.0333</i>		<i>77.9</i>	<i>40-150</i>			

LCS (BGI0482-BS1)

Prepared & Analyzed: 09/18/23

Acenaphthene	0.0243	0.00500	mg/kg	0.0333	72.8	31-137
Anthracene	0.0239	0.00500	"	0.0333	71.6	30-120
Benzo (a) anthracene	0.0229	0.00500	"	0.0333	68.7	30-120
Benzo (a) pyrene	0.0229	0.00500	"	0.0333	68.6	30-120
Benzo (b) fluoranthene	0.0253	0.00500	"	0.0333	75.9	30-120
Benzo (k) fluoranthene	0.0272	0.00500	"	0.0333	81.6	30-120
Chrysene	0.0259	0.00500	"	0.0333	77.6	30-120
Dibenz (a,h) anthracene	0.0146	0.00500	"	0.0333	43.9	30-120
Fluoranthene	0.0245	0.00500	"	0.0333	73.5	30-120
Fluorene	0.0234	0.00500	"	0.0333	70.3	30-120
Indeno (1,2,3-cd) pyrene	0.0183	0.00500	"	0.0333	54.9	30-120
Pyrene	0.0268	0.00500	"	0.0333	80.5	35-142
1-Methylnaphthalene	0.0230	0.00500	"	0.0333	68.9	35-142
2-Methylnaphthalene	0.0287	0.00500	"	0.0333	86.1	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0198</i>		"	<i>0.0333</i>	<i>59.5</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0242</i>		"	<i>0.0333</i>	<i>72.6</i>	<i>40-150</i>

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Tasman Geosciences
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Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0482 - EPA 5030 Soil MS

Matrix Spike (BGI0482-MS1)	Source: 2309214-01			Prepared & Analyzed: 09/18/23						
Acenaphthene	0.0186	0.00500	mg/kg	0.0333	ND	55.7	31-137			
Anthracene	0.0178	0.00500	"	0.0333	ND	53.5	30-120			
Benzo (a) anthracene	0.0190	0.00500	"	0.0333	ND	57.0	30-120			
Benzo (a) pyrene	0.0180	0.00500	"	0.0333	ND	54.1	30-120			
Benzo (b) fluoranthene	0.0200	0.00500	"	0.0333	ND	60.1	30-120			
Benzo (k) fluoranthene	0.0213	0.00500	"	0.0333	ND	63.9	30-120			
Chrysene	0.0201	0.00500	"	0.0333	ND	60.4	30-120			
Dibenz (a,h) anthracene	0.0117	0.00500	"	0.0333	ND	35.1	30-120			
Fluoranthene	0.0187	0.00500	"	0.0333	ND	56.2	30-120			
Fluorene	0.0185	0.00500	"	0.0333	ND	55.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0146	0.00500	"	0.0333	ND	43.9	30-120			
Pyrene	0.0207	0.00500	"	0.0333	ND	62.0	35-142			
1-Methylnaphthalene	0.0171	0.00500	"	0.0333	ND	51.3	15-130			
2-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	61.0	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0158</i>		<i>"</i>	<i>0.0333</i>		<i>47.5</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0191</i>		<i>"</i>	<i>0.0333</i>		<i>57.2</i>	<i>40-150</i>			

Matrix Spike Dup (BGI0482-MSD1)	Source: 2309214-01			Prepared & Analyzed: 09/18/23						
Acenaphthene	0.0168	0.00500	mg/kg	0.0333	ND	50.3	31-137	10.3	30	
Anthracene	0.0155	0.00500	"	0.0333	ND	46.5	30-120	14.0	30	
Benzo (a) anthracene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	7.27	30	
Benzo (a) pyrene	0.0160	0.00500	"	0.0333	ND	48.1	30-120	11.8	30	
Benzo (b) fluoranthene	0.0179	0.00500	"	0.0333	ND	53.7	30-120	11.2	30	
Benzo (k) fluoranthene	0.0189	0.00500	"	0.0333	ND	56.7	30-120	11.9	30	
Chrysene	0.0177	0.00500	"	0.0333	ND	53.1	30-120	12.9	30	
Dibenz (a,h) anthracene	0.0105	0.00500	"	0.0333	ND	31.5	30-120	11.1	30	
Fluoranthene	0.0162	0.00500	"	0.0333	ND	48.7	30-120	14.3	30	
Fluorene	0.0162	0.00500	"	0.0333	ND	48.6	30-120	13.0	30	
Indeno (1,2,3-cd) pyrene	0.0131	0.00500	"	0.0333	ND	39.4	30-120	10.9	30	
Pyrene	0.0187	0.00500	"	0.0333	ND	56.1	35-142	10.1	30	
1-Methylnaphthalene	0.0172	0.00500	"	0.0333	ND	51.7	15-130	0.744	50	
2-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.3	15-130	2.14	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0163</i>		<i>"</i>	<i>0.0333</i>		<i>48.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0167</i>		<i>"</i>	<i>0.0333</i>		<i>50.1</i>	<i>40-150</i>			

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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

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

Batch BGI0505 - EPA 3050B

Blank (BGI0505-BLK1)

Prepared: 09/18/23 Analyzed: 09/19/23

Boron ND 0.0100 mg/L

LCS (BGI0505-BS1)

Prepared: 09/18/23 Analyzed: 09/19/23

Boron 5.35 0.0100 mg/L 5.00 107 80-120

Duplicate (BGI0505-DUP1)

Source: 2309251-01

Prepared: 09/18/23 Analyzed: 09/19/23

Boron 0.376 0.0100 mg/L 0.404 7.19 20

Matrix Spike (BGI0505-MS1)

Source: 2309251-01

Prepared: 09/18/23 Analyzed: 09/19/23

Boron 5.54 0.0100 mg/L 5.00 0.404 103 75-125

Matrix Spike Dup (BGI0505-MSD1)

Source: 2309251-01

Prepared: 09/18/23 Analyzed: 09/19/23

Boron 5.78 0.0100 mg/L 5.00 0.404 108 75-125 4.31 25

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D

Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0488 - EPA 3050B

Blank (BGI0488-BLK1)

Prepared: 09/18/23 Analyzed: 09/20/23

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

LCS (BGI0488-BS1)

Prepared: 09/18/23 Analyzed: 09/20/23

Arsenic	33.5	0.200	mg/kg wet	40.0		83.7	80-120
Barium	35.4	0.400	"	40.0		88.5	80-120
Cadmium	1.97	0.200	"	2.00		98.7	80-120
Copper	33.3	0.400	"	40.0		83.3	80-120
Lead	23.4	0.200	"	20.0		117	80-120
Nickel	33.0	0.400	"	40.0		82.4	80-120
Silver	1.90	0.0200	"	2.00		94.9	80-120
Zinc	34.3	0.400	"	40.0		85.7	80-120

Duplicate (BGI0488-DUP1)

Source: 2309252-01

Prepared: 09/18/23 Analyzed: 09/20/23

Arsenic	1.89	0.200	mg/kg dry	1.56		19.2	20
Barium	44.7	0.400	"	38.0		16.2	20
Cadmium	0.156	0.200	"	0.139		11.8	20
Copper	4.06	0.400	"	3.69		9.42	20
Lead	6.47	0.200	"	4.83		29.1	20
Nickel	3.77	0.400	"	3.37		11.0	20
Silver	0.0473	0.0200	"	0.0430		9.43	20
Zinc	15.4	0.400	"	13.4		13.9	20
Selenium	ND	0.260	"	ND			200

QR-04

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0488 - EPA 3050B

Matrix Spike (BGI0488-MS1)	Source: 2309252-01			Prepared: 09/18/23		Analyzed: 09/20/23					
Arsenic	36.3	0.200	mg/kg dry	42.6	1.56	81.6	75-125				
Barium	89.0	0.400	"	42.6	38.0	120	75-125				
Cadmium	2.09	0.200	"	2.13	0.139	91.5	75-125				
Copper	27.9	0.400	"	42.6	3.69	56.8	75-125				QM-07
Lead	25.1	0.200	"	21.3	4.83	95.1	75-125				
Nickel	27.6	0.400	"	42.6	3.37	56.9	75-125				QM-07
Silver	1.80	0.0200	"	2.13	0.0430	82.3	75-125				
Zinc	41.2	0.400	"	42.6	13.4	65.3	75-125				QM-07

Matrix Spike Dup (BGI0488-MSD1)	Source: 2309252-01			Prepared: 09/18/23		Analyzed: 09/20/23					
Arsenic	36.5	0.200	mg/kg dry	42.6	1.56	82.0	75-125	0.432	25		
Barium	88.8	0.400	"	42.6	38.0	119	75-125	0.189	25		
Cadmium	2.15	0.200	"	2.13	0.139	94.5	75-125	2.95	25		
Copper	28.2	0.400	"	42.6	3.69	57.5	75-125	1.12	25		QM-07
Lead	25.5	0.200	"	21.3	4.83	96.9	75-125	1.51	25		
Nickel	28.0	0.400	"	42.6	3.37	57.9	75-125	1.42	25		QM-07
Silver	1.82	0.0200	"	2.13	0.0430	83.4	75-125	1.27	25		
Zinc	43.5	0.400	"	42.6	13.4	70.6	75-125	5.27	25		QM-07

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGI0454 - 3060A Mod

Blank (BGI0454-BLK1)

Prepared: 09/15/23 Analyzed: 09/18/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGI0454-BS1)

Prepared: 09/15/23 Analyzed: 09/18/23

Chromium, Hexavalent 26.6 0.30 mg/kg wet 25.0 106 80-120

Duplicate (BGI0454-DUP1)

Source: 2309215-01

Prepared: 09/15/23 Analyzed: 09/18/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGI0454-MS1)

Source: 2309215-01

Prepared: 09/15/23 Analyzed: 09/18/23

Chromium, Hexavalent 33.3 0.30 mg/kg dry 31.5 ND 106 75-125

Matrix Spike Dup (BGI0454-MSD1)

Source: 2309215-01

Prepared: 09/15/23 Analyzed: 09/18/23

Chromium, Hexavalent 33.2 0.30 mg/kg dry 31.5 ND 105 75-125 0.379 20

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D

Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0557 - General Preparation

Blank (BGI0557-BLK1)

Prepared: 09/19/23 Analyzed: 09/20/23

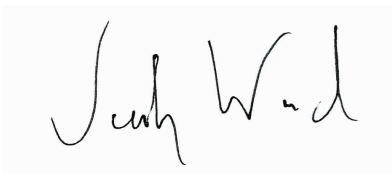
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BGI0557-BS1)

Prepared: 09/19/23 Analyzed: 09/20/23

Calcium	5.48	0.0500	mg/L wet	5.00		110	70-130			
Magnesium	5.23	0.0500	"	5.00		105	70-130			
Sodium	5.39	0.0500	"	5.00		108	70-130			

Summit Scientific



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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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

Summit Scientific

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

Batch BGI0502 - General Preparation

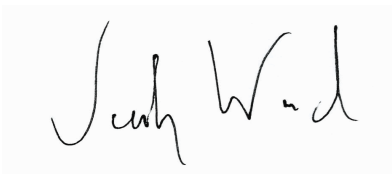
Duplicate (BGI0502-DUP1)

Source: 2309017-04

Prepared & Analyzed: 09/18/23

% Solids	90.5	%		94.8		4.63	20
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Summit Scientific



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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D
Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0586 - General Preparation

Blank (BGI0586-BLK1)

Prepared & Analyzed: 09/20/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGI0586-BS1)

Prepared & Analyzed: 09/20/23

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

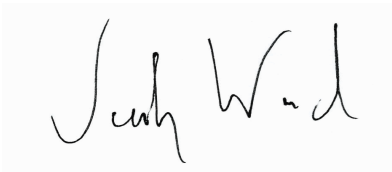
Duplicate (BGI0586-DUP1)

Source: 2309252-01

Prepared & Analyzed: 09/20/23

Specific Conductance (EC) 0.194 0.0100 mmhos/cm 0.194 0.0516 20

Summit Scientific



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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D

Project Number: UWRWE-A2563-ABN
Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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 BGI0588 - General Preparation

LCS (BGI0588-BS1)

Prepared & Analyzed: 09/20/23

pH	9.25	pH Units	9.18	101	95-105
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Duplicate (BGI0588-DUP1)

Source: 2309252-01

Prepared & Analyzed: 09/20/23

pH	7.82	pH Units	7.82	0.00	20
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Summit Scientific



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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - NEI C 18-21D

Project Number: UWRWE-A2563-ABN

Project Manager: Jacob Whritenour

Reported:
09/26/23 10:13

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.
- 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