Flowline Closure Checklist

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

Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure

Site Name & COGCC Facility Number: Worries 35-14	*Date:* 1/23/23	*Remediation Project #: 24380*
Associated Wells:	*Age of Site:*	*Number of Photos Attached: 2*

Starting point: *(GPS coordinates and descriptions)*
40.307188, -104.637356

End point: *(GPS coordinates and descriptions)*
40.307994, -104.639321

USCS Soil Type: SC	*Estimated Depth to Groundwater: >3'*

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	658'							
Construction Material	Steel							
Were flowlines pulled?	yes							
Visual Integrity of lines	yes							
Visual impacts if trenched	yes							
PID Readings if trenched	0.0							
Sample taken? Location/Sample ID#	yes, see below							
Photo Number(s)	1-2							

Other observations regarding on location flowlines:
One Sample taken from two bellholes at 3' deep. Both samples were taking at direction changes.

Summary

Was impacted soil identified?
No Yes - less than 10 cubic yards Yes - more than 10 cubic yards

Total number of samples field screened: 2	*Total number of samples collected:* 2
Highest PID Reading: 0.0	*Total number of samples submitted to lab for analysis:* 2
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 Yes - not impacted or in contact with impacted soils Yes - groundwater impacted and/or in contact with impacted soils

Measured depth to groundwater:	*Was remedial groundwater removal conducted?* Yes No
Date Groundwater was encountered:	*Commencement date of removal:*
Sheen on groundwater? Yes No	*Volume of groundwater removed prior to sampling:*
Free product observed? Yes No	*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	
Material: Steel	**Volume:**	**Contents:**
Notes/Conditions: Direction change		

Equipment ID: FL01-D@3'	**Equipment Type:** Flowline	
Material: Steel	**Volume:**	**Contents:**
Notes/Conditions: Direction change		

TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. - WORRIES 35-14 FL

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude[1]	Longitude	PDOP
FL01-C@3'	01/23/23	0.0	No Staining	No Odor	Lab	40.30767997	-104.6386431	1.1
FL01-D@3'	01/23/23	0.0	No Staining	No Odor	Lab	40.30747112	-104.6377209	1.1

Notes:

PID = Photo-ionization 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. - WORRIES 35-14 FL

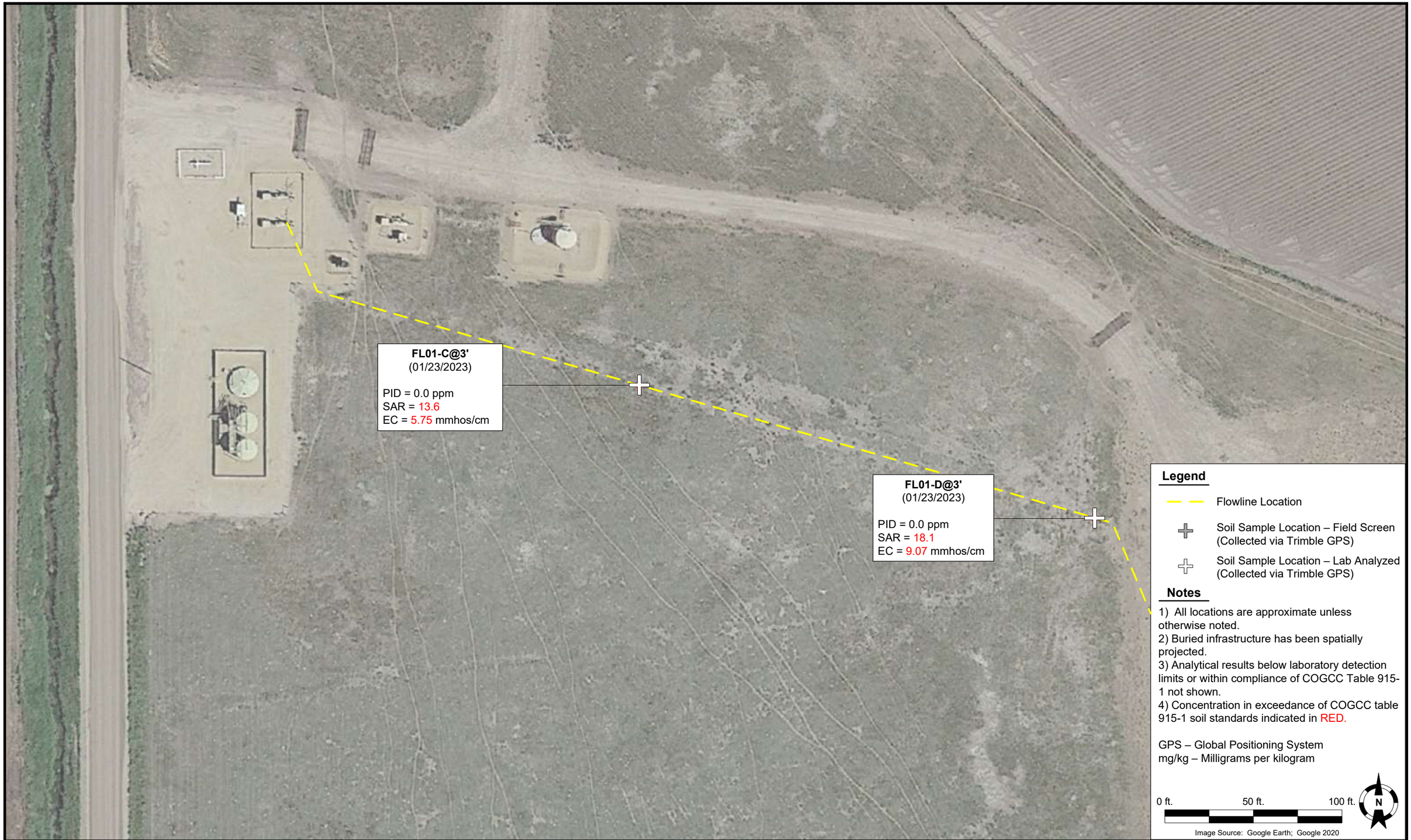
Soil Sample ID	Date	[1]Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (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[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[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'	01/23/23	<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
FL01-D@3'	01/23/23	<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)
Residential SSL[2]		**6 - 8.3**	**<6**	**<4mmhos/cm**	**2**
FL01-C@3'	01/23/23	7.80	**13.6**	**5.75**	0.334
FL01-D@3'	01/23/23	7.70	**18.1**	**9.07**	1.38

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

Definitions:
COGCC = Colorado Oil and Gas Conservation 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 COGCC Table 915-1 standard

1,2,4 - TMB = 1,2,4 Trimethylbenzene
1,3,5 - TMB = 1,3,5 Trimethylbenzene
Benz(a) = Benzanthracene
Benzo(b) = Benzofluoranthene
Benzo(k) = Benzofluoranthene
Benzo(a) = Benzopyrene
A,H = Dibenzoanthracene
1,2,3-CD = Indenopyrene
1-M = 1-methylnaphthalene
2-M = 2-methylnaphthalene



DATE:	2/27/2023
DESIGNED BY:	JW
DRAWN BY:	HM

TASMAN GEOSCIENCES

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

Noble Energy, Inc. – DJ Basin
Worries 35-14 FL
SWSW, Section 14, Township 4 North, Range 65 West
Weld County, Colorado

Flowline Closure & Soil Analytical Results Map (01/23/2023)

FIGURE 1

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 30, 2023

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

RE: Noble - Worries 35-14 FL
Work Order #2301392

Enclosed are the results of analyses for samples received by Summit Scientific on 01/23/23 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Scott Sheely For Paul Shrewsbury
President

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-C@3'	2301392-01	Soil	01/23/23 12:10	01/23/23 18:00
FL01-D@3'	2301392-02	Soil	01/23/23 13:45	01/23/23 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

2301392

S_2

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

Client: Noble / Tasman
Address: 6855 W. 119th Ave
City/State/Zip: Broomfield/ CO/ 80020
Phone: 503-915-3046
Sampler Name: Martin Medeiros

Project Manager: Jacob Whritenour Invoice: Cole Moore
E-Mail: JWhritenour@tasman-geo.com
Project Name: Worries 35-14 FL
Project Number: UWRWE-A2727-ABN

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	VOC-915	TPH-915	PAH-915	Boron-HWS	pH, EC, SAR				- pH, EC, SAR by saturated paste
1	FL01-C@3'	1/23/23	12:10	2			x			x			x	x	x	x	x				
2	FL01-D@3'	1/23/23	13:45	2			x			x			x	x	x	x	x				
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: Martin Medeiros Date/Time: 1/23/23 14:00
Received by: Tasman's Lock Box Date/Time: 1/23/23 14:00

Relinquished by: Tasman's Lock Box Date/Time: 1/23/23 1800
Received by: Date/Time: 1/23/23 1800

Relinquished by: Date/Time:
Received by: Date/Time:

Turn Around Time (Check)
Same Day ___ 72 hours ___
24 hours ___ Standard +
48 hours ___

Sample Integrity:
Temperature Upon Receipt: 0.5
Samples Intact: (Yes) No

Notes:

S2

Sample Receipt Checklist

S2 Work Order# 2301392

Client: Noble / Tasman Client Project ID: Worries 35-14 FL

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

[ ] [✓] [ ] [ ] [ ]

Matrix (Check all that apply) Air [ ] Soil/Solid [✓] Water [ ] Other [ ]

Temp (°C) 0.5 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.	✓			On ice.
If custody seals are present, are they intact? (1)	✓			
Are samples due within 48 hours present?		✓		
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		✓		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	✓			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	✓			
Were all samples received intact? (1)	✓			
Was adequate sample volume provided? (1)	✓			
Does the COC agree with the number and type of sample bottles received? (1)	✓			
Do the sample IDs on the bottle labels match the COC?(1)	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			✓	
Are samples preserved that require preservation **(excluding cooling)?** (1) Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

HS
Custodian Printed Name

1/23/23
Date/Time

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

FL01-C@3'

2301392-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGA0571	01/24/23	01/25/23	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: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0501	*125 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0394	*98.6 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	*104 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0573	01/24/23	01/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.76	*78.1 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

FL01-C@3'

2301392-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0634	01/26/23	01/26/23	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: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	*60.4 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	*61.6 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.334**	0.0100	mg/L	1	BGA0666	01/26/23	01/27/23	EPA 6020B	

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

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

FL01-C@3'

2301392-01 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**192**	0.0666	mg/L dry	1	BGA0589	01/24/23	01/25/23	EPA 6020B	
Magnesium	**149**	0.0666	"	"	"	"	"	"	
Sodium	**1030**	0.0666	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**13.6**	0.00100	units	1	BGA0656	01/26/23	01/26/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**75.1**		%	1	BGA0586	01/24/23	01/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**5.75**	0.0100	mmhos/cm	1	BGA0613	01/25/23	01/25/23	EPA 120.1	

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

Date Sampled: **01/23/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.80**		pH Units	1	BGA0612	01/25/23	01/25/23	EPA 9045D	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

FL01-D@3'

2301392-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGA0571	01/24/23	01/25/23	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: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0504	*126 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0392	*98.0 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	*103 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0573	01/24/23	01/25/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.8	*94.8 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

FL01-D@3'

2301392-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGA0634	01/26/23	01/26/23	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: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0196	*58.9 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0186	*55.7 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**1.38**	0.0100	mg/L	1	BGA0666	01/26/23	01/28/23	EPA 6020B	

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

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

FL01-D@3'

2301392-02 (Soil)

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**327**	0.0648	mg/L dry	1	BGA0589	01/24/23	01/25/23	EPA 6020B	
Magnesium	**236**	0.0648	"	"	"	"	"	"	
Sodium	**1760**	0.0648	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**18.1**	0.00100	units	1	BGA0656	01/26/23	01/26/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**77.2**		%	1	BGA0586	01/24/23	01/24/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**9.07**	0.0100	mmhos/cm	1	BGA0613	01/25/23	01/25/23	EPA 120.1	

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

Date Sampled: **01/23/23 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.70**		pH Units	1	BGA0612	01/25/23	01/25/23	EPA 9045D	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

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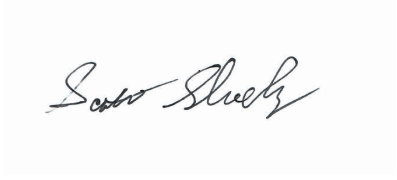
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0571 - EPA 5030 Soil MS										
Blank (BGA0571-BLK1)				Prepared & Analyzed: 01/24/23						
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0521*		*"*	*0.0400*		*130*	*50-150*			
Surrogate: Toluene-d8	*0.0386*		*"*	*0.0400*		*96.5*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0415*		*"*	*0.0400*		*104*	*50-150*			
LCS (BGA0571-BS1)				Prepared & Analyzed: 01/24/23						
Benzene	0.110	0.0020	mg/kg	0.125		88.0	70-130			
Toluene	0.112	0.0050	"	0.125		89.9	70-130			
Ethylbenzene	0.136	0.0050	"	0.125		109	70-130			
m,p-Xylene	0.266	0.010	"	0.250		106	70-130			
o-Xylene	0.127	0.0050	"	0.125		101	70-130			
1,2,4-Trimethylbenzene	0.143	0.0050	"	0.125		114	70-130			
1,3,5-Trimethylbenzene	0.138	0.0050	"	0.125		111	70-130			
Naphthalene	0.123	0.0038	"	0.125		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0502*		*"*	*0.0400*		*125*	*50-150*			
Surrogate: Toluene-d8	*0.0392*		*"*	*0.0400*		*97.9*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0393*		*"*	*0.0400*		*98.2*	*50-150*			
Matrix Spike (BGA0571-MS1)		**Source: 2301349-10**		Prepared & Analyzed: 01/24/23						
Benzene	0.110	0.0020	mg/kg	0.125	ND	88.0	70-130			
Toluene	0.112	0.0050	"	0.125	ND	90.0	70-130			
Ethylbenzene	0.135	0.0050	"	0.125	ND	108	70-130			
m,p-Xylene	0.266	0.010	"	0.250	ND	107	70-130			
o-Xylene	0.127	0.0050	"	0.125	ND	102	70-130			
1,2,4-Trimethylbenzene	0.145	0.0050	"	0.125	ND	116	70-130			
1,3,5-Trimethylbenzene	0.140	0.0050	"	0.125	ND	112	70-130			
Naphthalene	0.143	0.0038	"	0.125	ND	114	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0544*		*"*	*0.0400*		*136*	*50-150*			
Surrogate: Toluene-d8	*0.0395*		*"*	*0.0400*		*98.8*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0400*		*"*	*0.0400*		*100*	*50-150*			



Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0571 - EPA 5030 Soil MS										
Matrix Spike Dup (BGA0571-MSD1)	**Source: 2301349-10**			Prepared & Analyzed: 01/24/23						
Benzene	0.109	0.0020	mg/kg	0.125	ND	87.1	70-130	1.10	30	
Toluene	0.110	0.0050	"	0.125	ND	88.2	70-130	2.05	30	
Ethylbenzene	0.140	0.0050	"	0.125	ND	112	70-130	3.68	30	
m,p-Xylene	0.266	0.010	"	0.250	ND	106	70-130	0.0901	30	
o-Xylene	0.127	0.0050	"	0.125	ND	102	70-130	0.189	30	
1,2,4-Trimethylbenzene	0.145	0.0050	"	0.125	ND	116	70-130	0.228	30	
1,3,5-Trimethylbenzene	0.142	0.0050	"	0.125	ND	114	70-130	1.90	30	
Naphthalene	0.145	0.0038	"	0.125	ND	116	70-130	1.46	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0502*		"	*0.0400*		*125*	*50-150*			
Surrogate: Toluene-d8	*0.0390*		"	*0.0400*		*97.6*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0396*		"	*0.0400*		*99.1*	*50-150*			

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

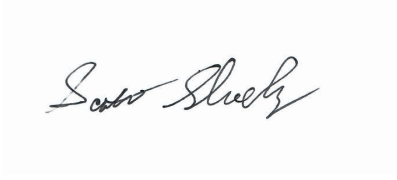
Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0573 - EPA 3550A										
Blank (BGA0573-BLK1)				Prepared & Analyzed: 01/24/23						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*12.1*		*"*	*12.5*		*96.8*	*30-150*			
LCS (BGA0573-BS1)				Prepared & Analyzed: 01/24/23						
C10-C28 (DRO)	558	50	mg/kg	500		112	70-130			
Surrogate: o-Terphenyl	*13.5*		*"*	*12.5*		*108*	*30-150*			
Matrix Spike (BGA0573-MS1)	**Source: 2301386-01**			Prepared & Analyzed: 01/24/23						
C10-C28 (DRO)	486	50	mg/kg	500	45.8	88.1	70-130			
Surrogate: o-Terphenyl	*9.85*		*"*	*12.5*		*78.8*	*30-150*			
Matrix Spike Dup (BGA0573-MSD1)	**Source: 2301386-01**			Prepared & Analyzed: 01/24/23						
C10-C28 (DRO)	466	50	mg/kg	500	45.8	84.1	70-130	4.18	20	
Surrogate: o-Terphenyl	*8.80*		*"*	*12.5*		*70.4*	*30-150*			

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0634 - EPA 5030 Soil MS										
Blank (BGA0634-BLK1)				Prepared & Analyzed: 01/26/23						
Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	*0.0282*		*"*	*0.0333*		*84.6*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0283*		*"*	*0.0333*		*85.0*	*40-150*			
LCS (BGA0634-BS1)				Prepared & Analyzed: 01/26/23						
Acenaphthene	0.0293	0.00500	mg/kg	0.0333		87.9	31-137			
Anthracene	0.0292	0.00500	"	0.0333		87.7	30-120			
Benzo (a) anthracene	0.0282	0.00500	"	0.0333		84.7	30-120			
Benzo (a) pyrene	0.0276	0.00500	"	0.0333		82.8	30-120			
Benzo (b) fluoranthene	0.0271	0.00500	"	0.0333		81.3	30-120			
Benzo (k) fluoranthene	0.0282	0.00500	"	0.0333		84.6	30-120			
Chrysene	0.0298	0.00500	"	0.0333		89.3	30-120			
Dibenz (a,h) anthracene	0.0250	0.00500	"	0.0333		75.0	30-120			
Fluoranthene	0.0284	0.00500	"	0.0333		85.2	30-120			
Fluorene	0.0292	0.00500	"	0.0333		87.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0247	0.00500	"	0.0333		74.1	30-120			
Pyrene	0.0303	0.00500	"	0.0333		90.8	35-142			
1-Methylnaphthalene	0.0310	0.00500	"	0.0333		92.9	35-142			
2-Methylnaphthalene	0.0284	0.00500	"	0.0333		85.3	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0280*		*"*	*0.0333*		*83.9*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0282*		*"*	*0.0333*		*84.7*	*40-150*			



Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

PAH by EPA Method 8270D SIM - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0634 - EPA 5030 Soil MS										
Matrix Spike (BGA0634-MS1)	**Source: 2301446-01**			Prepared & Analyzed: 01/26/23						
Acenaphthene	0.0223	0.00500	mg/kg	0.0333	ND	66.9	31-137			
Anthracene	0.0220	0.00500	"	0.0333	ND	66.1	30-120			
Benzo (a) anthracene	0.0225	0.00500	"	0.0333	ND	67.5	30-120			
Benzo (a) pyrene	0.0209	0.00500	"	0.0333	ND	62.7	30-120			
Benzo (b) fluoranthene	0.0209	0.00500	"	0.0333	ND	62.8	30-120			
Benzo (k) fluoranthene	0.0210	0.00500	"	0.0333	ND	63.1	30-120			
Chrysene	0.0219	0.00500	"	0.0333	ND	65.6	30-120			
Dibenz (a,h) anthracene	0.0180	0.00500	"	0.0333	ND	53.9	30-120			
Fluoranthene	0.0221	0.00500	"	0.0333	ND	66.2	30-120			
Fluorene	0.0230	0.00500	"	0.0333	ND	68.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0177	0.00500	"	0.0333	ND	53.1	30-120			
Pyrene	0.0236	0.00500	"	0.0333	ND	70.8	35-142			
1-Methylnaphthalene	0.0248	0.00500	"	0.0333	ND	74.3	15-130			
2-Methylnaphthalene	0.0236	0.00500	"	0.0333	ND	70.6	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0227*		*"*	*0.0333*		*68.0*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0232*		*"*	*0.0333*		*69.7*	*40-150*			
Matrix Spike Dup (BGA0634-MSD1)	**Source: 2301446-01**			Prepared & Analyzed: 01/26/23						
Acenaphthene	0.0222	0.00500	mg/kg	0.0333	ND	66.7	31-137	0.340	30	
Anthracene	0.0189	0.00500	"	0.0333	ND	56.6	30-120	15.4	30	
Benzo (a) anthracene	0.0208	0.00500	"	0.0333	ND	62.3	30-120	7.95	30	
Benzo (a) pyrene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	7.33	30	
Benzo (b) fluoranthene	0.0190	0.00500	"	0.0333	ND	56.9	30-120	9.85	30	
Benzo (k) fluoranthene	0.0191	0.00500	"	0.0333	ND	57.4	30-120	9.52	30	
Chrysene	0.0203	0.00500	"	0.0333	ND	60.9	30-120	7.40	30	
Dibenz (a,h) anthracene	0.0181	0.00500	"	0.0333	ND	54.4	30-120	1.01	30	
Fluoranthene	0.0201	0.00500	"	0.0333	ND	60.2	30-120	9.43	30	
Fluorene	0.0235	0.00500	"	0.0333	ND	70.5	30-120	2.28	30	
Indeno (1,2,3-cd) pyrene	0.0177	0.00500	"	0.0333	ND	53.1	30-120	0.0283	30	
Pyrene	0.0212	0.00500	"	0.0333	ND	63.5	35-142	10.9	30	
1-Methylnaphthalene	0.0276	0.00500	"	0.0333	ND	82.7	15-130	10.6	50	
2-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	15-130	4.58	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0222*		*"*	*0.0333*		*66.7*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0205*		*"*	*0.0333*		*61.4*	*40-150*			

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0666 - EPA 3050B										
Blank (BGA0666-BLK1)				Prepared: 01/26/23 Analyzed: 01/27/23						
Boron	ND	0.0100	mg/L							
LCS (BGA0666-BS1)				Prepared: 01/26/23 Analyzed: 01/27/23						
Boron	5.67	0.0100	mg/L	5.00		113	80-120			
Duplicate (BGA0666-DUP1)		**Source: 2301392-01**		Prepared: 01/26/23 Analyzed: 01/27/23						
Boron	0.336	0.0100	mg/L		0.334			0.588	20	
Matrix Spike (BGA0666-MS1)		**Source: 2301392-01**		Prepared: 01/26/23 Analyzed: 01/28/23						
Boron	5.92	0.0100	mg/L	5.00	0.334	112	75-125			
Matrix Spike Dup (BGA0666-MSD1)		**Source: 2301392-01**		Prepared: 01/26/23 Analyzed: 01/28/23						
Boron	6.04	0.0100	mg/L	5.00	0.334	114	75-125	2.09	25	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0589 - General Preparation										
Blank (BGA0589-BLK1)				Prepared: 01/24/23 Analyzed: 01/25/23						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BGA0589-BS1)				Prepared: 01/24/23 Analyzed: 01/25/23						
Calcium	5.72	0.0500	mg/L wet	5.00		114	70-130			
Magnesium	5.59	0.0500	"	5.00		112	70-130			
Sodium	5.30	0.0500	"	5.00		106	70-130			

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0586 - General Preparation										
Duplicate (BGA0586-DUP1)		**Source: 2301389-01**		Prepared & Analyzed: 01/24/23						
% Solids	83.3		%		83.8			0.633	20	

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0613 - General Preparation										
Blank (BGA0613-BLK1)				Prepared & Analyzed: 01/25/23						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BGA0613-BS1)				Prepared & Analyzed: 01/25/23						
Specific Conductance (EC)	0.150	0.0100	mmhos/cm	0.150		99.9	95-105			
Duplicate (BGA0613-DUP1)		**Source: 2301278-16**		Prepared & Analyzed: 01/25/23						
Specific Conductance (EC)	0.638	0.0100	mmhos/cm		0.662			3.67	20	

Tasman Geosciences 6855 W. 119th Ave. Broomfield CO, 80020	Project: Noble - Worries 35-14 FL Project Number: UWRWE-A2727-ABN Project Manager: Jacob Whritenour	**Reported:** 01/30/23 12:03

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

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BGA0612 - General Preparation										
LCS (BGA0612-BS1)				Prepared & Analyzed: 01/25/23						
pH	9.05		pH Units	9.18		98.6	95-105			
Duplicate (BGA0612-DUP1)		**Source: 2301383-02**		Prepared & Analyzed: 01/25/23						
pH	7.58		pH Units		7.64			0.788	20	

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Notes and Definitions

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