

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: HSR-Tudor 11-31A		Date: 06/12/2023, 06/14/2023						Remediation Project #: 27627
Associated Wells:		Age of Site:						Number of Photos Attached: 6
Starting point: (GPS coordinates and descriptions) 40.266303 -104.710912								
End point: (GPS coordinates and descriptions) 40.267137 -104.708507								
USCS Soil Type: Well Graded Sand - SW					Estimated Depth to Groundwater: >5'			
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/Water/Gas							
Depth	5'							
Age								
Length	737'							
Construction Material	Steel							
Were flowlines pulled?	Yes							
Visual Integrity of lines	NA							
Visual impacts if trenched	NA							
PID Readings if trenched	0.0-0.5							
Sample taken? Location/Sample ID#	Yes, see below							
Photo Number(s)	1 - 6							
Other observations regarding on location flowlines: Samples taken at the wellhead and the separator (FL01-A@4' & FL01-B@4') as well as along the flowline path (FL01-C@4' through FL01-F@5')								
Summary								
Was impacted soil identified? No Yes - less than 10 cubic yards Yes - more than 10 cubic yards								
Total number of samples field screened: 6					Total number of samples collected: 6			
Highest PID Reading: 0.5					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-B@4'		Equipment Type: Flowline		Equipment ID: FL01-A@4'		Equipment Type: Flowline	
Material: Steel		Volume:	Contents: Oil/Gas/Water	Material: Steel		Volume:	Contents: Oil/Gas/Water
Notes/Conditions: Facing west				Notes/Conditions: Facing east			

Photographic Log

					
Equipment ID: FL01-C@4'		Equipment Type: Flowline		Equipment ID: FL01-D@4'	
Material: Steel	Volume:	Contents: Oil/Gas/Water		Material: Steel	Volume:
Notes/Conditions: Facing east			Notes/Conditions: Facing east		

Photographic Log

					
Equipment ID: FL01-E@4'		Equipment Type: Flowline		Equipment ID: FL01-F@5'	
Material: Steel	Volume:	Contents: Oil/Gas/Water		Material: Steel	Volume:
Notes/Conditions:			Notes/Conditions:		

TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. HSR-TUDOR 11-31A

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude ¹	Longitude	PDOP
FL01-A@4'	06/12/23	0.0	No Staining	No Odor	Lab	-104.7085236	40.26713962	0.9
FL01-B@4'	06/12/23	0.0	No Staining	No Odor	Lab	-104.7109294	40.26630616	0.9
FL01-C@5'	06/14/23	0.3	No Staining	No Odor	Grab	-104.7090979	40.26692858	0.9
FL01-D@4'	06/14/23	0.1	No Staining	No Odor	Grab	-104.7096303	40.26674164	1.0
FL01-E@4'	06/14/23	0.5	No Staining	No Odor	Grab	-104.7101112	40.26657834	1.0
FL01-F@5'	06/14/23	0.3	No Staining	No Odor	Grab	-104.7106070	40.26639123	1.1

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. HSR-TUDOR 11-31A

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-A@4'	6/12/2023	<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-B@4'	6/12/2023	<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-A@4'	6/12/2023	7.63	0.343	0.311	0.159
FL01-B@4'	6/12/2023	5.29	0.106	0.0917	0.0759

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) = Benzo(a)anthracene

Benzo(b) = Benzo(b)fluoranthene

Benzo(k) = Benzo(k)fluoranthene

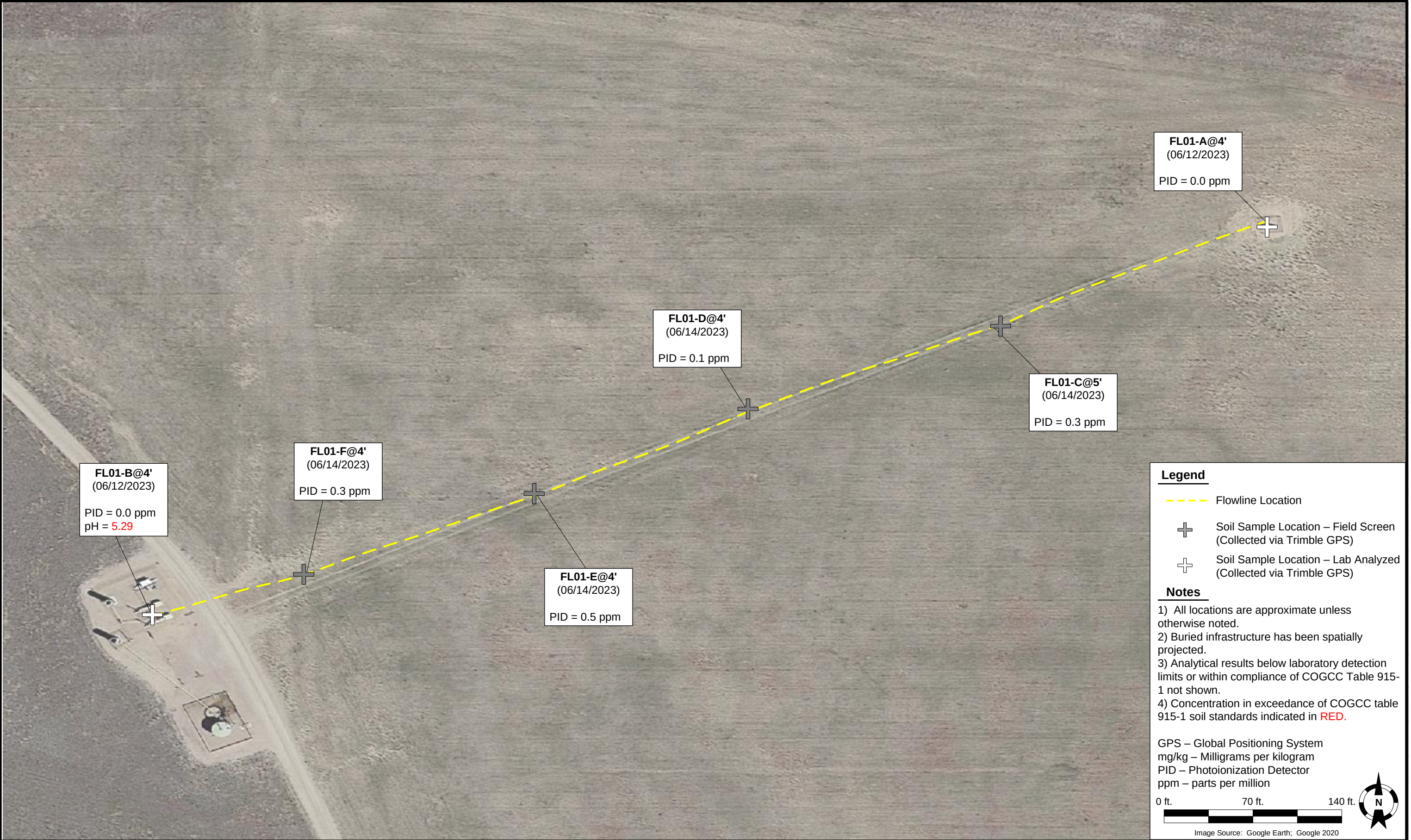
Benzo(a) = Benzo(a)pyrene

A,H = Dibenzo(a,h)anthracene

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

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene



DATE:	07/06/2023	 Tasman Geosciences, Inc. 6855 W 119th Avenue Broomfield, CO 80020	Noble Energy, Inc. – DJ Basin HSR-Tudor 11-31A NESW, Section 31, Township 4 North, Range 65 West Weld County, Colorado	Flowline Closure & Soil Analytical Results Map (06/12/2023 & 06/14/2023)	FIGURE 1
DESIGNED BY:	JW				
DRAWN BY:	MP				

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 20, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

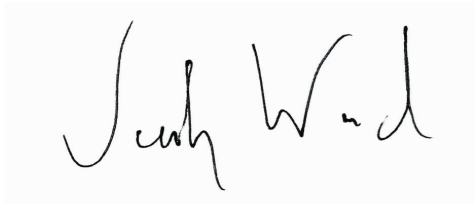
Broomfield, CO 80020

RE: Noble - HSR Tudor 11-31A

Work Order #2306214

Enclosed are the results of analyses for samples received by Summit Scientific on 06/12/23 17:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-A@4'	2306214-01	Soil	06/12/23 11:35	06/12/23 17:35
FL01-B@4'	2306214-02	Soil	06/12/23 11:06	06/12/23 17:35

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.

		Send Data To:	Send Invoice To:
Client: Noble/Tasman	Project Manager: Jake Whritenour		Company: Noble
Address: 6855 W. 119th Ave.	E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location:
City/State/Zip: Broomfield/CO/ 80020			AFE#: <u>WW2W4-A7553-A13N</u>
Phone: 937-554-5108	Project Name: <u>HSR Tudor 11-31A</u>		PO/Billing Codes:
Sampler Name: Molly Parks	Project Number: <u>27627</u>		Contact: <u>Wade F</u>

				Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	
1	F101-A@4'	6-12-23	1135	2			X			X				X	X	X	X	X		
2	F101-B@4'	6-12-23	1106	2			X			X				X	X	X	X	X		
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: <u>MP</u>	Date/Time: <u>6-12-23/1610</u>	Received by: Tasman Lock Box	Date/Time: <u>6-12-23/1610</u>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by:	Date/Time: <u>6-12-23</u>	Received by:	Date/Time: <u>6-12-23</u>	1 Day	Field ORP	
<u>Tasman Lock Box</u>	<u>1730</u>	<u>[Signature]</u>	<u>1730</u>	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: <u>12.3</u>		Corrected Temperature <u>0</u>		IR gun #: <u>1</u>	HNO3 lot #:	

S₂

Sample Receipt Checklist

S2 Work Order# 2306214Client: Noble Gasman Client Project ID: HR-Tudor 11-31AShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #:

☐	☐	☐	☐	☐
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 12.3Thermometer # 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.	☒	☐	☐	
If custody seals are present, are they intact? ⁽¹⁾	☒	☐	☐	NOTE
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 ₂ SO 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.
AS
Custodian Printed Name

6/12/23
Date/Time



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

FL01-A@4'
2306214-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGF0471	06/13/23	06/13/23	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: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0382	95.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0480	06/13/23	06/13/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.2	97.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



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

Project: Noble - HSR Tudor 11-31A
Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-A@4'
2306214-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGF0464	06/13/23	06/13/23	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: **06/12/23 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0229	68.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0269	80.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.159	0.0100	mg/L	1	BGF0472	06/13/23	06/18/23	EPA 6020B	

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

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

FL01-A@4'
2306214-01 (Soil)

Summit Scientific

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

Calcium	82.8	0.0551	mg/L dry	1	BGF0533	06/14/23	06/18/23	EPA 6020B
Magnesium	15.7	0.0551	"	"	"	"	"	"
Sodium	13.0	0.0551	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.343	0.00100	units	1	BGF0657	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.7		%	1	BGF0469	06/13/23	06/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.311	0.0100	mmhos/cm	1	BGF0567	06/15/23	06/15/23	EPA 120.1	

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

Date Sampled: **06/12/23 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.63		pH Units	1	BGF0564	06/15/23	06/15/23	EPA 9045D	

Summit Scientific

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



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

FL01-B@4'
2306214-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0471	06/13/23	06/13/23	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: **06/12/23 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0405	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0480	06/13/23	06/13/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.0	95.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

FL01-B@4'
2306214-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0464	06/13/23	06/13/23	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: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0212	63.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0298	89.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/12/23 11:06**

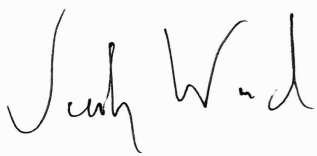
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0759	0.0100	mg/L	1	BGF0472	06/13/23	06/18/23	EPA 6020B	

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

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

FL01-B@4'
2306214-02 (Soil)

Summit Scientific

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

Calcium	37.4	0.0558	mg/L dry	1	BGF0533	06/14/23	06/18/23	EPA 6020B
Magnesium	9.14	0.0558	"	"	"	"	"	"
Sodium	2.79	0.0558	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.106	0.00100	units	1	BGF0657	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BGF0469	06/13/23	06/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0917	0.0100	mmhos/cm	1	BGF0567	06/15/23	06/15/23	EPA 120.1	

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

Date Sampled: **06/12/23 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.29		pH Units	1	BGF0564	06/15/23	06/15/23	EPA 9045D	

Summit Scientific

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



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGF0471 - EPA 5030 Soil MS

Blank (BGF0471-BLK1)

Prepared: 06/06/23 Analyzed: 06/13/23

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	0.0382		"	0.0400		95.4	50-150			
Surrogate: Toluene-d8	0.0380		"	0.0400		95.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0413		"	0.0400		103	50-150			

LCS (BGF0471-BS1)

Prepared: 06/06/23 Analyzed: 06/13/23

Benzene	0.0688	0.0020	mg/kg	0.0750		91.7	70-130			
Toluene	0.0800	0.0050	"	0.0750		107	70-130			
Ethylbenzene	0.0940	0.0050	"	0.0750		125	70-130			
m,p-Xylene	0.185	0.010	"	0.150		123	70-130			
o-Xylene	0.0819	0.0050	"	0.0750		109	70-130			
1,2,4-Trimethylbenzene	0.0847	0.0050	"	0.0750		113	70-130			
1,3,5-Trimethylbenzene	0.0903	0.0050	"	0.0750		120	70-130			
Naphthalene	0.0654	0.0038	"	0.0750		87.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0333		"	0.0400		83.2	50-150			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.8	50-150			

Matrix Spike (BGF0471-MS1)

Source: 2306210-01

Prepared: 06/06/23 Analyzed: 06/13/23

Benzene	0.0651	0.0020	mg/kg	0.0750	ND	86.8	70-130			
Toluene	0.0732	0.0050	"	0.0750	ND	97.6	70-130			
Ethylbenzene	0.0876	0.0050	"	0.0750	ND	117	70-130			
m,p-Xylene	0.172	0.010	"	0.150	ND	115	70-130			
o-Xylene	0.0779	0.0050	"	0.0750	ND	104	70-130			
1,2,4-Trimethylbenzene	0.0822	0.0050	"	0.0750	ND	110	70-130			
1,3,5-Trimethylbenzene	0.0846	0.0050	"	0.0750	ND	113	70-130			
Naphthalene	0.0705	0.0038	"	0.0750	ND	94.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0348		"	0.0400		86.9	50-150			
Surrogate: Toluene-d8	0.0378		"	0.0400		94.5	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGF0471 - EPA 5030 Soil MS

Matrix Spike Dup (BGF0471-MSD1)	Source: 2306210-01			Prepared: 06/06/23 Analyzed: 06/13/23						
Benzene	0.0662	0.0020	mg/kg	0.0750	ND	88.3	70-130	1.64	30	
Toluene	0.0751	0.0050	"	0.0750	ND	100	70-130	2.51	30	
Ethylbenzene	0.0872	0.0050	"	0.0750	ND	116	70-130	0.446	30	
m,p-Xylene	0.173	0.010	"	0.150	ND	115	70-130	0.191	30	
o-Xylene	0.0770	0.0050	"	0.0750	ND	103	70-130	1.20	30	
1,2,4-Trimethylbenzene	0.0818	0.0050	"	0.0750	ND	109	70-130	0.512	30	
1,3,5-Trimethylbenzene	0.0853	0.0050	"	0.0750	ND	114	70-130	0.777	30	
Naphthalene	0.0730	0.0038	"	0.0750	ND	97.4	70-130	3.55	30	
Surrogate: 1,2-Dichloroethane-d4	0.0356		"	0.0400		88.9	50-150			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150			

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGF0480 - EPA 3550A

Blank (BGF0480-BLK1)

Prepared & Analyzed: 06/13/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	11.9		"	12.5		95.5	30-150			

LCS (BGF0480-BS1)

Prepared & Analyzed: 06/13/23

C10-C28 (DRO)	449	50	mg/kg	500		89.8	70-130			
Surrogate: o-Terphenyl	11.7		"	12.5		93.3	30-150			

Matrix Spike (BGF0480-MS1)

Source: 2306210-01

Prepared & Analyzed: 06/13/23

C10-C28 (DRO)	421	50	mg/kg	500	18.5	80.5	70-130			
Surrogate: o-Terphenyl	11.5		"	12.5		91.9	30-150			

Matrix Spike Dup (BGF0480-MSD1)

Source: 2306210-01

Prepared & Analyzed: 06/13/23

C10-C28 (DRO)	465	50	mg/kg	500	18.5	89.3	70-130	9.89	20	
Surrogate: o-Terphenyl	12.3		"	12.5		98.7	30-150			

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.



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

Project: Noble - HSR Tudor 11-31A
Project Number: 27627
Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGF0464 - EPA 5030 Soil MS

Blank (BGF0464-BLK1)

Prepared & Analyzed: 06/13/23

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	0.0279		"	0.0333		83.6	40-150			
Surrogate: Fluoranthene-d10	0.0345		"	0.0333		104	40-150			

LCS (BGF0464-BS1)

Prepared & Analyzed: 06/13/23

Acenaphthene	0.0328	0.00500	mg/kg	0.0333		98.5	31-137			
Anthracene	0.0347	0.00500	"	0.0333		104	30-120			
Benzo (a) anthracene	0.0292	0.00500	"	0.0333		87.5	30-120			
Benzo (a) pyrene	0.0278	0.00500	"	0.0333		83.5	30-120			
Benzo (b) fluoranthene	0.0294	0.00500	"	0.0333		88.3	30-120			
Benzo (k) fluoranthene	0.0315	0.00500	"	0.0333		94.5	30-120			
Chrysene	0.0345	0.00500	"	0.0333		103	30-120			
Dibenz (a,h) anthracene	0.0212	0.00500	"	0.0333		63.7	30-120			
Fluoranthene	0.0325	0.00500	"	0.0333		97.4	30-120			
Fluorene	0.0325	0.00500	"	0.0333		97.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0189	0.00500	"	0.0333		56.7	30-120			
Pyrene	0.0360	0.00500	"	0.0333		108	35-142			
1-Methylnaphthalene	0.0268	0.00500	"	0.0333		80.4	35-142			
2-Methylnaphthalene	0.0287	0.00500	"	0.0333		86.0	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0294		"	0.0333		88.2	40-150			
Surrogate: Fluoranthene-d10	0.0327		"	0.0333		98.2	40-150			

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGF0464 - EPA 5030 Soil MS

Matrix Spike (BGF0464-MS1)

Source: 2306210-01

Prepared & Analyzed: 06/13/23

Acenaphthene	0.0145	0.00500	mg/kg	0.0333	ND	43.4	31-137			
Anthracene	0.0134	0.00500	"	0.0333	ND	40.1	30-120			
Benzo (a) anthracene	0.0136	0.00500	"	0.0333	ND	40.9	30-120			
Benzo (a) pyrene	0.0154	0.00500	"	0.0333	ND	46.2	30-120			
Benzo (b) fluoranthene	0.0140	0.00500	"	0.0333	ND	42.1	30-120			
Benzo (k) fluoranthene	0.0160	0.00500	"	0.0333	ND	47.9	30-120			
Chrysene	0.0151	0.00500	"	0.0333	ND	45.3	30-120			
Dibenz (a,h) anthracene	0.0137	0.00500	"	0.0333	ND	41.2	30-120			
Fluoranthene	0.0134	0.00500	"	0.0333	ND	40.1	30-120			
Fluorene	0.0146	0.00500	"	0.0333	ND	43.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0137	0.00500	"	0.0333	ND	41.0	30-120			
Pyrene	0.0144	0.00500	"	0.0333	ND	43.1	35-142			
1-Methylnaphthalene	0.0147	0.00500	"	0.0333	ND	44.0	15-130			
2-Methylnaphthalene	0.0136	0.00500	"	0.0333	ND	40.7	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0151		"	0.0333		45.3	40-150			
Surrogate: Fluoranthene-d10	0.0139		"	0.0333		41.6	40-150			

Matrix Spike Dup (BGF0464-MSD1)

Source: 2306210-01

Prepared & Analyzed: 06/13/23

Acenaphthene	0.0158	0.00500	mg/kg	0.0333	ND	47.3	31-137	8.70	30	
Anthracene	0.0151	0.00500	"	0.0333	ND	45.3	30-120	12.1	30	
Benzo (a) anthracene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	22.2	30	
Benzo (a) pyrene	0.0154	0.00500	"	0.0333	ND	46.3	30-120	0.149	30	
Benzo (b) fluoranthene	0.0154	0.00500	"	0.0333	ND	46.2	30-120	9.34	30	
Benzo (k) fluoranthene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	6.63	30	
Chrysene	0.0178	0.00500	"	0.0333	ND	53.3	30-120	16.2	30	
Dibenz (a,h) anthracene	0.0143	0.00500	"	0.0333	ND	42.9	30-120	4.06	30	
Fluoranthene	0.0158	0.00500	"	0.0333	ND	47.5	30-120	16.8	30	
Fluorene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	2.32	30	
Indeno (1,2,3-cd) pyrene	0.0148	0.00500	"	0.0333	ND	44.4	30-120	7.93	30	
Pyrene	0.0193	0.00500	"	0.0333	ND	57.8	35-142	29.1	30	
1-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.3	15-130	13.5	50	
2-Methylnaphthalene	0.0167	0.00500	"	0.0333	ND	50.1	15-130	20.5	50	
Surrogate: 2-Methylnaphthalene-d10	0.0174		"	0.0333		52.3	40-150			
Surrogate: Fluoranthene-d10	0.0208		"	0.0333		62.5	40-150			

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

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

Summit Scientific

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

Batch BGF0472 - EPA 3050B

Blank (BGF0472-BLK1)

Prepared: 06/13/23 Analyzed: 06/18/23

Boron ND 0.0100 mg/L

LCS (BGF0472-BS1)

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 4.87 0.0100 mg/L 5.00 97.3 80-120

Duplicate (BGF0472-DUP1)

Source: 2306213-01

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 0.849 0.0100 mg/L 0.814 4.15 20

Matrix Spike (BGF0472-MS1)

Source: 2306213-01

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 5.18 0.0100 mg/L 5.00 0.814 87.3 75-125

Matrix Spike Dup (BGF0472-MSD1)

Source: 2306213-01

Prepared: 06/13/23 Analyzed: 06/18/23

Boron 5.36 0.0100 mg/L 5.00 0.814 90.9 75-125 3.40 25

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.



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

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

Summit Scientific

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

Batch BGF0533 - General Preparation

Blank (BGF0533-BLK1)

Prepared: 06/14/23 Analyzed: 06/18/23

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

LCS (BGF0533-BS1)

Prepared: 06/14/23 Analyzed: 06/18/23

Calcium	5.56	0.0500	mg/L wet	5.00	111	70-130
Magnesium	6.17	0.0500	"	5.00	123	70-130
Sodium	6.03	0.0500	"	5.00	121	70-130

Summit Scientific

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



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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

Summit Scientific

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

Batch BGF0469 - General Preparation

Duplicate (BGF0469-DUP1)

Source: 2305670-04

Prepared & Analyzed: 06/13/23

% Solids	76.8	%	77.6	1.02	20
----------	------	---	------	------	----

Summit Scientific

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



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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

Summit Scientific

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

Batch BGF0567 - General Preparation

Blank (BGF0567-BLK1)

Prepared & Analyzed: 06/15/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGF0567-BS1)

Prepared & Analyzed: 06/15/23

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BGF0567-DUP1)

Source: 2304374-05

Prepared & Analyzed: 06/15/23

Specific Conductance (EC) 6.39 0.0100 mmhos/cm 6.56 2.52 20

Summit Scientific

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



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:

06/20/23 14:25

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

Summit Scientific

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

Batch BGF0564 - General Preparation

LCS (BGF0564-BS1)

Prepared & Analyzed: 06/15/23

pH	9.10	pH Units	9.18	99.1	95-105
----	------	----------	------	------	--------

Duplicate (BGF0564-DUP1)

Source: 2305547-01

Prepared & Analyzed: 06/15/23

pH	7.22	pH Units	7.27	0.690	20
----	------	----------	------	-------	----

Summit Scientific

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



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

Project: Noble - HSR Tudor 11-31A

Project Number: 27627

Project Manager: Jacob Whritenour

Reported:
06/20/23 14:25

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