

Third Party Removal Date									
Sample taken? Location/Container									
PID Readings									
Photo Number(s)									

Other Facility Equipment

Equipment type	Meter House				
Equipment Condition	Good				
Age					
Soil impacts	None observed				
PID Readings	0.0				
Sample taken?	Yes, see below				
Photo Number(s)	10				

Other observations regarding other facility or third party equipment:

Sample taken below meter house. (MH01@0.5')

Summary

Was impacted soil identified?	
No	Yes - less than 10 cubic yards Yes - more than 10 cubic yards
Total number of samples field screened: 13	Total number of samples collected: 13
Highest PID Reading: 45.8	Total number of samples submitted to lab for analysis: 12
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: SS01 @2.5'		Equipment Type: Partially Buried Vault		Equipment ID: SS02 @2.5'		Equipment Type: Partially Buried Vault	
Material: Concrete	Volume:	Contents: Produced Water		Material: Concrete	Volume:	Contents: Produced Water	
Notes/Conditions:				Notes/Conditions:			

Photographic Log



Equipment ID: SS03@2.5'		Equipment Type: Partially Buried Vault		Equipment ID: SS04@2.5'		Equipment Type: Partially Buried Vault	
Material: Concrete	Volume:	Contents: Produced Water		Material: Concrete	Volume:	Contents: Produced Water	
Notes/Conditions:				Notes/Conditions:			

Photographic Log

					
Material: Steel	Volume:	Contents: Crude Oil	Material: Steel	Volume:	Contents: Crude Oil
Notes/Conditions:			Notes/Conditions:		

Photographic Log


Equipment ID: AST03@0.5'		Equipment Type: Above Ground Storage Tank		Equipment ID: SEP01-FL01@3		Equipment Type: Separator	
Material: Steel	Volume:	Contents: Crude Oil		Material: Steel	Volume:	Contents: Oil/Gas/Water	
Notes/Conditions:				Notes/Conditions:			

Photographic Log



Equipment ID: SEP01-DL01@		Equipment Type: Separator		Equipment ID: MH01 @0.5'		Equipment Type: Emission Control Device	
Material: Steel	Volume:	Contents: Oil/Gas/Water		Material:	Volume:	Contents:	
Notes/Conditions:				Notes/Conditions:			

Photographic Log



Equipment ID: BG01@3'		Equipment Type:		Equipment ID: BG01@5'		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions:				Notes/Conditions:			

Photographic Log

											
Equipment ID: FS01 @5'		Equipment Type: Partially Buried Vault		Equipment ID:		Equipment Type:					
Material: Concrete		Volume:		Contents: Produced Water		Material:		Volume:		Contents:	
Notes/Conditions:						Notes/Conditions:					

**TABLE 1
SOIL SAMPLE LOCATIONS
NOBLE ENERGY, INC. - LILLI UNIT 10-12**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude ¹	Longitude	PDOP
SS01@2.5'	03/31/22	0.0	No Staining	No Odor	Lab	40.67760483	-103.9223004	1.1
SS02@2.5'	03/31/22	0.0	No Staining	No Odor	Grab	40.67758400	-103.9222673	1.3
SS03@2.5'	03/31/22	0.0	No Staining	No Odor	Grab	40.67757065	-103.9222910	1.2
SS04@2.5'	03/31/22	0.0	No Staining	No Odor	Grab	40.67758178	-103.9223179	1.2
FS01@5'	03/31/22	1.5	No Staining	No Odor	Lab	40.67758659	-103.9223041	1.3
AST01@0.5'	03/31/22	0.0	No Staining	No Odor	Lab	40.67762927	-103.9222981	1.0
AST02@0.5'	03/31/22	0.0	No Staining	No Odor	Lab	40.67767200	-103.9222944	1.1
AST03@0.5'	03/31/22	3.7	No Staining	No Odor	Lab	40.67767092	-103.9223575	1.0
SEP01-DL01@3'	03/31/22	15.3	No Staining	No Odor	Lab	40.67768667	-103.9219928	1.0
SEP01-FL01@3'	03/31/22	45.8	No Staining	Slight HC Odor	Lab	40.67767096	-103.9219619	1.0
MH01@0.5'	03/31/22	0.0	No Staining	No Odor	Grab	40.67770216	-103.9219186	1.1
BG01@3'	03/31/22	0.0	No Staining	No Odor	Lab	40.67736699	-103.9223255	1.0
BG01@5'	03/31/22	0.0	No Staining	No Odor	Grab	40.67736699	-103.9223255	1.0

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. - LILLI UNIT 10-12

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
SS01@2.5'	03/31/22	<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
FS01@5'	03/31/22	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	94	<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
AST01@0.5'	03/31/22	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	350	81	<0.0500	<0.0500	<0.0500 ^d	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500 ^d	<0.0500 ^d	<0.0500 ^d
AST02@0.5'	03/31/22	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	1200	330	<0.0500	<0.0500	<0.0500 ^d	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500 ^d	<0.0500 ^d	<0.0500 ^d
AST03@0.5'	03/31/22	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	2700	710	<0.0500	<0.0500	0.625	0.584	0.159	<0.0500	0.768	0.104	<0.0500	<0.0500	0.0858	0.188	<0.0500 ^d	<0.0500 ^d
SEP01-DL01@3'	03/31/22	<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	0.00654	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	
SEP01-FL01@3'	03/31/22	<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	

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL ²		6 - 8.3	<6	<4mmhos/cm	2
SS01@2.5'	03/31/22	7.43	0.786	0.278	0.0176
FS01@5'	03/31/22	7.66	0.219	0.959	0.0573
AST01@0.5'	03/31/22	7.54	0.400	0.776	0.0395
AST02@0.5'	03/31/22	7.47	0.193	0.164	0.0275
AST03@0.5'	03/31/22	7.98	0.365	0.956	0.0335
SEP01-DL01@3'	03/31/22	7.97	1.800	1.090	0.1970
SEP01-FL01@3'	03/31/22	7.91	0.292	0.293	0.0273

Soil Sample ID	Date	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 ²		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
AST03@0.5'	3/31/2022	3.03	159	<0.224	<0.30	4.49	7.89	3.70	0.761	0.0508	16.7
BG01@3'	3/31/2022	3.30	163	<0.216	<0.30	4.89	8.15	4.17	0.840	0.0404	15.6

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.

4. Due to lab dilution requirements, detection limit above COGCC Protection of Groundwater SSL's 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 = Millimhos 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

Benzo(a) = Benzoanthracene

Benzo(b) = Benzo(a)fluoranthene

Benzo(k) = Benzo(a)fluoranthene

Benzo(a) = Benzopyrene

A,H = Dibenzoanthracene

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

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene

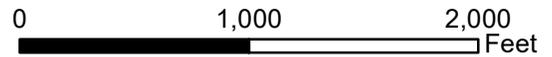
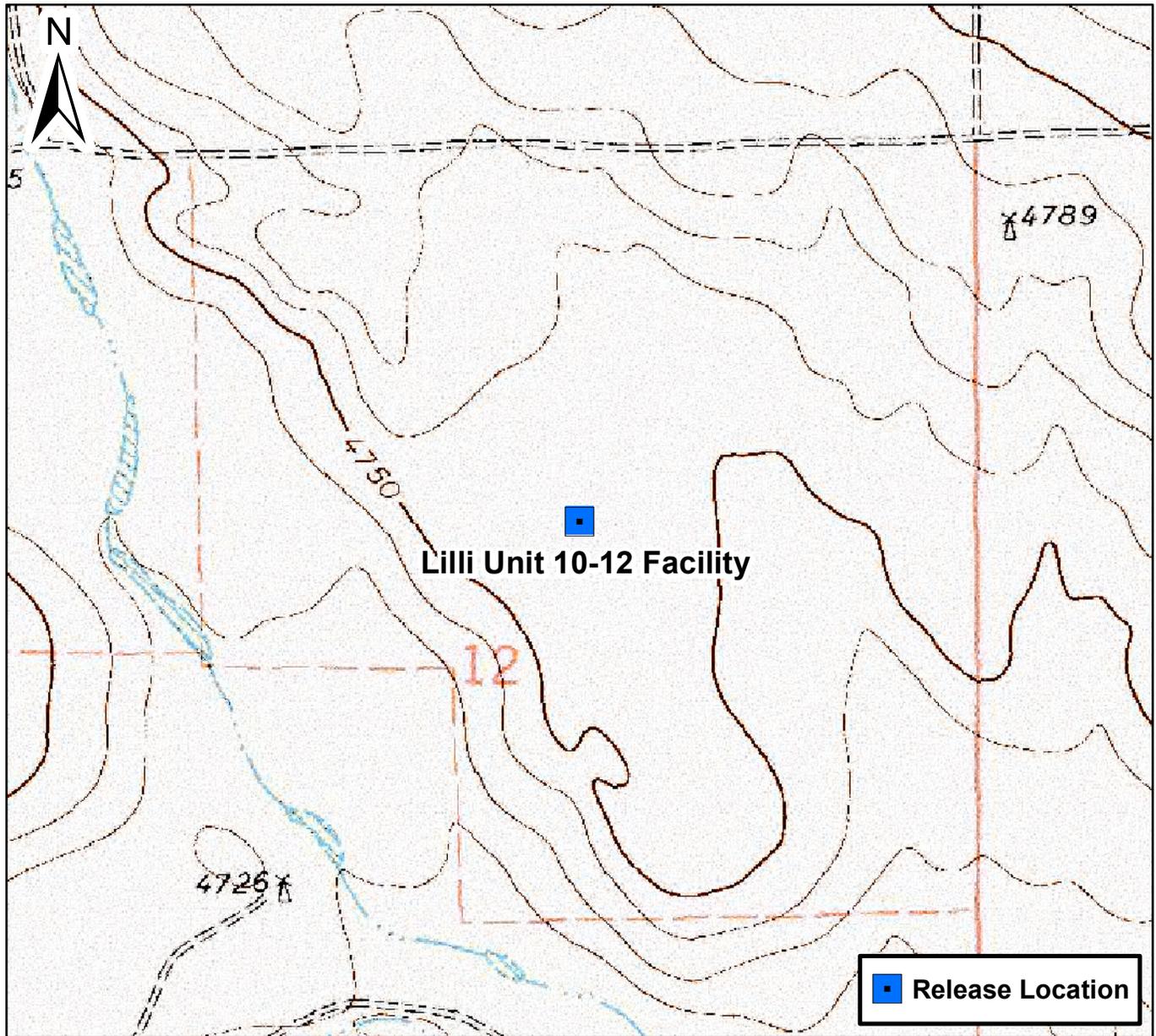


Figure 1

Site Location Map
 Lilli Unit 10-12 Facility
 NWSE S12 T8N R59W
 Weld County, Colorado





AST03@0.5'
(3/31/2022)

PID = 3.7 ppm
 TPH = **3,410** mg/kg
 Benzo (a) anthracene = **0.625** mg/kg
 Benzo (a) pyrene = **0.584** mg/kg
 Dibenz (a,h) anthracene = **0.104** mg/kg
 Arsenic = **3.03** mg/kg
 Barium = **159** mg/kg
 Selenium = **0.761** mg/kg

AST02@0.5'
(3/31/2022)

PID = 0.0 ppm
 TPH = **1,530** mg/kg

SEP01-DL01@3'
(3/31/2022)

PID = 15.3 ppm

MH01@0.5'
(3/31/2022)

PID = 0.0 ppm

SS01@2.5'
(3/31/2022)

PID = 0.0 ppm

AST01@0.5'
(3/31/2022)

PID = 0.0 ppm

SEP01-FL01@3'
(3/31/2022)

PID = 45.8 ppm

SS04@2.5'
(3/31/2022)

PID = 0.0 ppm

SS02@2.5'
(3/31/2022)

PID = 0.0 ppm

FS01@5'
(3/31/2022)

PID = 1.5 ppm

SS03@2.5'
(3/31/2022)

PID = 0.0 ppm

BG01@3'
(3/31/2022)

PID = 0.0 ppm
 Arsenic = 3.30 mg/kg
 Barium = 163 mg/kg
 Selenium = 0.840 mg/kg

BG01@5'
(3/31/2022)

PID = 0.0 ppm

Legend

- + Soil Sample Location – Field Screen (Collected via Trimble GPS)
- + Soil Sample Location – Lab Analyzed (Collected via Trimble GPS)
- - - Excavation Extent (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 COGCC Table 915-1 not shown.
- 4) Concentration in exceedance of COGCC table 915-1 soil standards indicated in **RED**.

GPS – Global Positioning System
 mg/kg – Milligrams per kilogram
 TPH – Total Petroleum Hydrocarbons

0 ft. 20 ft. 40 ft.

Image Source: Google Earth; Google 2020

DATE: 4/18/2022

DESIGNED BY: JW

DRAWN BY: JC



Noble Energy, Inc. – DJ Basin
Lilli Unit 10-12 Facility
 SWNE, Section 12, Township 8 North, Range 59 West
 Weld County, Colorado

Wellhead Closure & Soil
 Analytical Results Map
 (3/31/2022)

FIGURE
 2

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 02, 2022

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Lilli Unit 10-12 (Fac)

Work Order #2204029

Enclosed are the results of analyses for samples received by Summit Scientific on 04/01/22 09:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury

President



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

Project: Noble - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@2.5'	2204029-01	Soil	03/31/22 10:00	04/01/22 09:30
FS01@5'	2204029-05	Soil	03/31/22 10:08	04/01/22 09:30
AST01@0.5'	2204029-06	Soil	03/31/22 10:10	04/01/22 09:30
AST02@0.5'	2204029-07	Soil	03/31/22 10:12	04/01/22 09:30
AST03@0.5'	2204029-08	Soil	03/31/22 10:14	04/01/22 09:30
SEP01-DL01@3'	2204029-09	Soil	03/31/22 14:35	04/01/22 09:30
SEP01-FL01@3'	2204029-10	Soil	03/31/22 14:38	04/01/22 09:30
BG01@3'	2204029-11	Soil	03/31/22 14:40	04/01/22 09:30

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

2204029.1

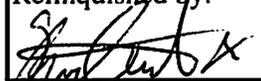
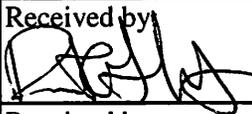
S₂

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

Page 1 of 2

Client: Noble / Tasman Project Manager: Jake Whritenour, Invoice Wade Firestien
 Address: 6855 W. 119th Ave E-Mail: jwhritenour@tasman-geo.com
 City/State/Zip: Broomfield/ CO/ 80020
 Phone: 303261-6246 Project Name: Lilli Unit 10-12 (FAC)
 Sampler Name: Stanley Gilbert Project Number: UWBWE - A1788 - ABN

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS		HOLD	
1	SS01 @ 2.5'	3/31/22	10:00	2			X			X				X	X	X	X	X		SAR, EC, PH By saturated paste
2	SS02 @ 2.5'		10:02											X	X	X	X	X		
3	SS03 @ 2.5'		10:04											X	X	X	X	X		
4	SS04 @ 2.5'		10:06											X	X	X	X	X		
5	FS01 @ 5'		10:08																	
6	AST01 @ 0.5'		10:10																	
7	AST02 @ 0.5'		10:12																	
8	AST03 @ 0.5'		10:14																	
9	SEP01-DL01 @ 3'		14:35																	
10	SEP02-FL01 @ 3'		14:38																	

Relinquished by: 	Date/Time: 3/31/22 14:25	Received by: Tasman's Lock Box	Date/Time: 3/31/22 14:25	Turn Around Time (Check) Same Day — 72 hours 24 hours — Standard <input checked="" type="checkbox"/> 48 hours — Sample Integrity: Temperature Upon Receipt: <u>4.1</u> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 4/1/22 09:30	Received by: 	Date/Time: 4/22 0930		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Summit Scientific

S₂

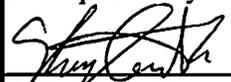
2204029.2

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

Page 2 of 2

Client: Noble / Tasman Project Manager: Jake Whritenour, Invoice Wade Firestien
Address: 6855 W. 119th Ave E-Mail: jwhritenour@tasman-geo.com
City/State/Zip: Broomfield/ CO/ 80020
Phone: 303261-6246 Project Name: Lilli Unit 10-12 (FAC)
Sampler Name: Stanley Gilbert Project Number: UWBWE-A1788-ABN

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	VOC - 915	TPH - 915	PAH - 915	PH, EC, SAR	Boron - HWS		HOLD
1	B60163'	3/31/22	14:40	1			X			X						X	X	X	HOLD
2	B60265'	3/31/22	14:42	1			X			X						X	X	X	HOLD
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: 	Date/Time: 3/31/22 14:25	Received by: Tasman's Lock Box	Date/Time: 3/31/22 14:25	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____ Sample Integrity: Temperature Upon Receipt: 4.1 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 4/22 0430	Received by: 	Date/Time: 4/22 0930		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

2204029

Sample Receipt Checklist

S2 Work Order#

Client: Noble/Tosman Client Project ID: Lill: unit 10-12 (FAC)

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

-

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

Temp (°C) 4.1 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.	-			on ICE
Were all samples received intact ⁽¹⁾ ?	-			
Was adequate sample volume provided ⁽¹⁾ ?	-			
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⁾ ?	-			
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⁾ ?	-			
Is the COC properly relinquished by the client w/ date and time recorded ⁽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.


Custodian Printed Name

RAH
3-4-1-22
Date/Time



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

Project: Noble - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SS01@2.5'
2204029-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		140 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		86.7 %	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SS01@2.5'
2204029-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0046	04/04/22	04/05/22	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: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		45.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0176	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

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

Date Sampled: **03/31/22 10:00**

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SS01@2.5'
2204029-01 (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	21.2	0.0546	mg/L dry	1	BFD0233	04/12/22	04/16/22	EPA 6020B	
Magnesium	5.04	0.0546	"	"	"	"	"	"	
Sodium	15.5	0.0546	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.786	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.6		%	1	BFD0201	04/11/22	04/11/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.278	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.43		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

FS01@5'
2204029-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		144 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	94	50	mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		88.2 %	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

FS01@5'
2204029-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0046	04/04/22	04/05/22	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: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		45.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		40.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0573	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

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

Date Sampled: **03/31/22 10:08**

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

FS01@5'
2204029-05 (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	84.8	0.0567	mg/L dry	1	BFD0233	04/12/22	04/16/22	EPA 6020B	
Magnesium	13.3	0.0567	"	"	"	"	"	"	
Sodium	8.22	0.0567	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.219	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.2		%	1	BFD0201	04/11/22	04/11/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.959	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 10:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.66		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST01@0.5'
2204029-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		143 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	350	50	mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	81	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		89.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

R-01

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST01@0.5'
2204029-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

R-01

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BFD0046	04/04/22	04/05/22	EPA 8270D SIM	
Anthracene	ND	0.0500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	
Chrysene	ND	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	
Fluoranthene	ND	0.0500	"	"	"	"	"	"	
Fluorene	ND	0.0500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	
Pyrene	ND	0.0500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		56.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		40.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0395	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

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

Date Sampled: **03/31/22 10:10**

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST01@0.5'
2204029-06 (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	65.6	0.0544	mg/L dry	1	BFD0233	04/12/22	04/16/22	EPA 6020B	
Magnesium	14.9	0.0544	"	"	"	"	"	"	
Sodium	13.7	0.0544	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.400	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.8		%	1	BFD0201	04/11/22	04/11/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.776	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.54		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST02@0.5'
2204029-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		145 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1200	50	mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	330	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

R-01

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST02@0.5'
2204029-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

R-01

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BFD0046	04/04/22	04/05/22	EPA 8270D SIM	
Anthracene	ND	0.0500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	
Chrysene	ND	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	
Fluoranthene	ND	0.0500	"	"	"	"	"	"	
Fluorene	ND	0.0500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	
Pyrene	ND	0.0500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		84.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0275	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

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

Date Sampled: **03/31/22 10:12**

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST02@0.5'
2204029-07 (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	19.4	0.0569	mg/L dry	1	BFD0233	04/12/22	04/16/22	EPA 6020B	
Magnesium	5.15	0.0569	"	"	"	"	"	"	
Sodium	3.70	0.0569	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.193	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9		%	1	BFD0201	04/11/22	04/11/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.164	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.47		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST03@0.5'
2204029-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		135 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	2700	50		mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	710	50		"	"	"	"	"	"	

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		105 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

R-01

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST03@0.5'
2204029-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

R-01

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BFD0046	04/04/22	04/05/22	EPA 8270D SIM	
Anthracene	ND	0.0500	"	"	"	"	"	"	"
Benzo (a) anthracene	0.625	0.0500	"	"	"	"	"	"	"
Benzo (a) pyrene	0.584	0.0500	"	"	"	"	"	"	"
Benzo (b) fluoranthene	0.159	0.0500	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	"
Chrysene	0.768	0.0500	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	0.104	0.0500	"	"	"	"	"	"	"
Fluoranthene	ND	0.0500	"	"	"	"	"	"	"
Fluorene	ND	0.0500	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	0.0858	0.0500	"	"	"	"	"	"	"
Pyrene	0.188	0.0500	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	"

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	128 %	40-150	"	"	"	"	"	"	S-02
Surrogate: Fluoranthene-d10	72.8 %	40-150	"	"	"	"	"	"	S-02

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0335	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **03/31/22 10:14**

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST03@0.5'
2204029-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.03	0.224	mg/kg dry	1	BFD0538	04/25/22	04/30/22	EPA 6020B	
Barium	159	0.448	"	"	"	"	"	"	
Cadmium	ND	0.224	"	"	"	"	"	"	
Copper	4.49	0.448	"	"	"	"	"	"	
Lead	7.89	0.224	"	"	"	"	"	"	
Nickel	3.70	0.448	"	"	"	"	"	"	
Selenium	0.761	0.291	"	"	"	"	"	"	
Silver	0.0508	0.0224	"	"	"	"	"	"	
Zinc	16.7	0.448	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFD0388	04/19/22	04/19/22	EPA 7196A	

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

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	131	0.0560	mg/L dry	1	BFD0233	04/12/22	04/16/22	EPA 6020B	
Magnesium	22.5	0.0560	"	"	"	"	"	"	
Sodium	17.2	0.0560	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.365	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 10:14**

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

AST03@0.5'
2204029-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.2	%	1	BFD0201	04/11/22	04/11/22	Calculation
----------	------	---	---	---------	----------	----------	-------------

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.956	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.98		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SEP01-DL01@3'
2204029-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		146 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		104 %	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SEP01-DL01@3'
2204029-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0046	04/04/22	04/05/22	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	0.00654	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: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		71.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		56.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.197	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

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

Date Sampled: **03/31/22 14:35**

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SEP01-DL01@3'
2204029-09 (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	68.2	0.0570	mg/L dry	1	BFD0233	04/12/22	04/17/22	EPA 6020B	
Magnesium	12.0	0.0570	"	"	"	"	"	"	
Sodium	61.4	0.0570	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.80	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	BFD0201	04/11/22	04/11/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.09	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.97		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SEP01-FL01@3'
2204029-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0043	04/04/22	04/05/22	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: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		138 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0044	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.5 %	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SEP01-FL01@3'
2204029-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0046	04/04/22	04/05/22	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: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		86.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		90.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0273	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

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

Date Sampled: **03/31/22 14:38**

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

SEP01-FL01@3'
2204029-10 (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	29.9	0.0564	mg/L dry	1	BFD0233	04/12/22	04/17/22	EPA 6020B	
Magnesium	5.07	0.0564	"	"	"	"	"	"	
Sodium	6.57	0.0564	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.292	0.00100	units	1	BFD0332	04/17/22	04/17/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.6		%	1	BFD0201	04/11/22	04/11/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.293	0.0100	mmhos/cm	1	BFD0251	04/13/22	04/13/22	EPA 120.1	

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

Date Sampled: **03/31/22 14:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.91		pH Units	1	BFD0252	04/13/22	04/13/22	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

BG01@3'
2204029-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **03/31/22 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.30	0.216	mg/kg dry	1	BFD0538	04/25/22	04/30/22	EPA 6020B	
Barium	163	0.432	"	"	"	"	"	"	"
Cadmium	ND	0.216	"	"	"	"	"	"	"
Copper	4.89	0.432	"	"	"	"	"	"	"
Lead	8.15	0.216	"	"	"	"	"	"	"
Nickel	4.17	0.432	"	"	"	"	"	"	"
Selenium	0.840	0.281	"	"	"	"	"	"	"
Silver	0.0404	0.0216	"	"	"	"	"	"	"
Zinc	15.6	0.432	"	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/31/22 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFD0388	04/19/22	04/19/22	EPA 7196A	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/31/22 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	92.5		%	1	BFD0421	04/20/22	04/20/22	Calculation	

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0043 - EPA 5030 Soil MS

Blank (BFD0043-BLK1)

Prepared & Analyzed: 04/04/22

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>	0.0556		"	0.0400		139	50-150			
<i>Surrogate: Toluene-d8</i>	0.0404		"	0.0400		101	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0428		"	0.0400		107	50-150			

LCS (BFD0043-BS1)

Prepared & Analyzed: 04/04/22

Benzene	0.0836	0.0020	mg/kg	0.100		83.6	70-130			
Toluene	0.0996	0.0050	"	0.100		99.6	70-130			
Ethylbenzene	0.0940	0.0050	"	0.100		94.0	70-130			
m,p-Xylene	0.196	0.010	"	0.200		97.8	70-130			
o-Xylene	0.0980	0.0050	"	0.100		98.0	70-130			
1,2,4-Trimethylbenzene	0.107	0.0050	"	0.100		107	70-130			
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
Naphthalene	0.107	0.0038	"	0.100		107	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0500		"	0.0400		125	50-150			
<i>Surrogate: Toluene-d8</i>	0.0424		"	0.0400		106	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0424		"	0.0400		106	50-150			

Matrix Spike (BFD0043-MS1)

Source: 2204022-01

Prepared & Analyzed: 04/04/22

Benzene	0.0919	0.0020	mg/kg	0.100	ND	91.9	70-130			
Toluene	0.104	0.0050	"	0.100	ND	104	70-130			
Ethylbenzene	0.0968	0.0050	"	0.100	ND	96.8	70-130			
m,p-Xylene	0.200	0.010	"	0.200	ND	100	70-130			
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130			
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130			
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130			
Naphthalene	0.129	0.0038	"	0.100	ND	129	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0509		"	0.0400		127	50-150			
<i>Surrogate: Toluene-d8</i>	0.0412		"	0.0400		103	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0432		"	0.0400		108	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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0043 - EPA 5030 Soil MS

Matrix Spike Dup (BFD0043-MSD1)	Source: 2204022-01			Prepared & Analyzed: 04/04/22						
Benzene	0.0948	0.0020	mg/kg	0.100	ND	94.8	70-130	3.12	30	
Toluene	0.107	0.0050	"	0.100	ND	107	70-130	2.54	30	
Ethylbenzene	0.0975	0.0050	"	0.100	ND	97.5	70-130	0.710	30	
m,p-Xylene	0.205	0.010	"	0.200	ND	102	70-130	2.40	30	
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130	1.44	30	
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	0.985	30	
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	1.77	30	
Naphthalene	0.123	0.0038	"	0.100	ND	123	70-130	4.82	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0514</i>		<i>"</i>	<i>0.0400</i>		<i>128</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0420</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>50-150</i>			

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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BFD0044 - EPA 3550A

Blank (BFD0044-BLK1)

Prepared & Analyzed: 04/04/22

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							

LCS (BFD0044-BS1)

Prepared & Analyzed: 04/04/22

C10-C28 (DRO)	477	50	mg/kg	500	95.3	70-130				
---------------	-----	----	-------	-----	------	--------	--	--	--	--

Matrix Spike (BFD0044-MS1)

Source: 2204022-01

Prepared & Analyzed: 04/04/22

C10-C28 (DRO)	451	50	mg/kg	500	28.3	84.5	70-130			
---------------	-----	----	-------	-----	------	------	--------	--	--	--

Matrix Spike Dup (BFD0044-MSD1)

Source: 2204022-01

Prepared & Analyzed: 04/04/22

C10-C28 (DRO)	453	50	mg/kg	500	28.3	84.9	70-130	0.384	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 - Lilli Unit 10-12 (Fac)
Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0046 - EPA 5030 Soil MS

Blank (BFD0046-BLK1)

Prepared & Analyzed: 04/04/22

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>0.0178</i>		"	<i>0.0333</i>		<i>53.5</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0161</i>		"	<i>0.0333</i>		<i>48.3</i>	<i>40-150</i>			

LCS (BFD0046-BS1)

Prepared: 04/04/22 Analyzed: 04/05/22

Acenaphthene	0.0202	0.00500	mg/kg	0.0333		60.5	31-137			
Anthracene	0.0198	0.00500	"	0.0333		59.5	30-120			
Benzo (a) anthracene	0.0208	0.00500	"	0.0333		62.5	30-120			
Benzo (a) pyrene	0.0188	0.00500	"	0.0333		56.4	30-120			
Benzo (b) fluoranthene	0.0197	0.00500	"	0.0333		59.2	30-120			
Benzo (k) fluoranthene	0.0202	0.00500	"	0.0333		60.5	30-120			
Chrysene	0.0193	0.00500	"	0.0333		57.9	30-120			
Dibenz (a,h) anthracene	0.0202	0.00500	"	0.0333		60.6	30-120			
Fluoranthene	0.0204	0.00500	"	0.0333		61.2	30-120			
Fluorene	0.0177	0.00500	"	0.0333		53.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0295	0.00500	"	0.0333		88.4	30-120			
Pyrene	0.0212	0.00500	"	0.0333		63.6	35-142			
1-Methylnaphthalene	0.0211	0.00500	"	0.0333		63.2	35-142			
2-Methylnaphthalene	0.0188	0.00500	"	0.0333		56.4	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0194</i>		"	<i>0.0333</i>		<i>58.2</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0201</i>		"	<i>0.0333</i>		<i>60.4</i>	<i>40-150</i>			

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0046 - EPA 5030 Soil MS

Matrix Spike (BFD0046-MS1)	Source: 2204021-01			Prepared: 04/04/22 Analyzed: 04/05/22							
Acenaphthene	0.0541	0.00500	mg/kg	0.0333	ND	162	31-137				S-02
Anthracene	0.0236	0.00500	"	0.0333	ND	70.7	30-120				
Benzo (a) anthracene	0.0235	0.00500	"	0.0333	ND	70.4	30-120				
Benzo (a) pyrene	0.0549	0.00500	"	0.0333	0.0645	NR	30-120				S-02
Benzo (b) fluoranthene	0.0352	0.00500	"	0.0333	ND	106	30-120				
Benzo (k) fluoranthene	0.0247	0.00500	"	0.0333	ND	74.1	30-120				
Chrysene	0.0518	0.00500	"	0.0333	0.0488	9.27	30-120				S-02
Dibenz (a,h) anthracene	0.0346	0.00500	"	0.0333	ND	104	30-120				
Fluoranthene	0.0166	0.00500	"	0.0333	ND	49.7	30-120				
Fluorene	0.0444	0.00500	"	0.0333	ND	133	30-120				S-02
Indeno (1,2,3-cd) pyrene	0.0394	0.00500	"	0.0333	ND	118	30-120				
Pyrene	0.0390	0.00500	"	0.0333	0.00703	95.9	35-142				
1-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.6	15-130				
2-Methylnaphthalene	0.0222	0.00500	"	0.0333	ND	66.6	15-130				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0222</i>		<i>"</i>	<i>0.0333</i>		<i>66.7</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0174</i>		<i>"</i>	<i>0.0333</i>		<i>52.2</i>	<i>40-150</i>				

Matrix Spike Dup (BFD0046-MSD1)	Source: 2204021-01			Prepared: 04/04/22 Analyzed: 04/05/22							
Acenaphthene	0.0174	0.00500	mg/kg	0.0333	ND	52.1	31-137	103	30		S-02
Anthracene	0.0246	0.00500	"	0.0333	ND	73.9	30-120	4.34	30		
Benzo (a) anthracene	0.0270	0.00500	"	0.0333	ND	81.1	30-120	14.1	30		
Benzo (a) pyrene	0.0735	0.00500	"	0.0333	0.0645	26.9	30-120	28.9	30		S-02
Benzo (b) fluoranthene	0.0339	0.00500	"	0.0333	ND	102	30-120	3.96	30		
Benzo (k) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.5	30-120	34.1	30		S-02
Chrysene	0.0814	0.00500	"	0.0333	0.0488	98.0	30-120	44.4	30		S-02
Dibenz (a,h) anthracene	0.0331	0.00500	"	0.0333	ND	99.4	30-120	4.19	30		
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.8	30-120	9.86	30		
Fluorene	0.00687	0.00500	"	0.0333	ND	20.6	30-120	146	30		S-02
Indeno (1,2,3-cd) pyrene	0.0604	0.00500	"	0.0333	ND	181	30-120	42.2	30		S-02
Pyrene	0.0453	0.00500	"	0.0333	0.00703	115	35-142	15.1	30		
1-Methylnaphthalene	0.0252	0.00500	"	0.0333	ND	75.6	15-130	5.08	50		
2-Methylnaphthalene	0.0247	0.00500	"	0.0333	ND	74.1	15-130	10.7	50		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0243</i>		<i>"</i>	<i>0.0333</i>		<i>72.9</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0171</i>		<i>"</i>	<i>0.0333</i>		<i>51.4</i>	<i>40-150</i>				

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0140 - EPA 3050B

Blank (BFD0140-BLK1)

Prepared: 04/07/22 Analyzed: 04/14/22

Boron ND 0.0100 mg/L

LCS (BFD0140-BS1)

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 5.09 0.0100 mg/L 5.00 102 80-120

Duplicate (BFD0140-DUP1)

Source: 2204024-01

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 0.106 0.0100 mg/L 0.115 7.93 20

Matrix Spike (BFD0140-MS1)

Source: 2204024-01

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 5.50 0.0100 mg/L 5.00 0.115 108 75-125

Matrix Spike Dup (BFD0140-MSD1)

Source: 2204024-01

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 5.38 0.0100 mg/L 5.00 0.115 105 75-125 2.23 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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BFD0538 - EPA 3050B

Blank (BFD0538-BLK1)

Prepared: 04/25/22 Analyzed: 04/30/22

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	"						
Selenium	ND	0.260	"						
Silver	ND	0.0200	"						
Zinc	ND	0.400	"						

LCS (BFD0538-BS1)

Prepared: 04/25/22 Analyzed: 04/30/22

Arsenic	45.2	0.200	mg/kg wet	40.0	113	80-120
Barium	39.4	0.400	"	40.0	98.5	80-120
Cadmium	2.28	0.200	"	2.00	114	80-120
Copper	41.0	0.400	"	40.0	103	80-120
Lead	20.9	0.200	"	20.0	105	80-120
Nickel	40.3	0.400	"	40.0	101	80-120
Selenium	4.00	0.260	"	4.00	100	80-120
Silver	2.06	0.0200	"	2.00	103	80-120
Zinc	44.6	0.400	"	40.0	112	80-120

Duplicate (BFD0538-DUP1)

Source: 2204029-08

Prepared: 04/25/22 Analyzed: 04/30/22

Arsenic	3.08	0.224	mg/kg dry	3.03	1.84	20
Barium	155	0.448	"	159	2.02	20
Cadmium	0.160	0.224	"	0.168	4.88	20
Copper	4.36	0.448	"	4.49	2.90	20
Lead	7.68	0.224	"	7.89	2.69	20
Nickel	3.58	0.448	"	3.70	3.33	20
Selenium	0.763	0.291	"	0.761	0.200	20
Silver	0.0448	0.0224	"	0.0508	12.5	20
Zinc	16.6	0.448	"	16.7	0.551	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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0538 - EPA 3050B

Matrix Spike (BFD0538-MS1)	Source: 2204029-08			Prepared: 04/25/22 Analyzed: 04/30/22								
Arsenic	57.1	0.224	mg/kg dry	44.8	3.03	121	75-125					
Barium	238	0.448	"	44.8	159	176	75-125					QM-05
Cadmium	2.78	0.224	"	2.24	0.168	117	75-125					
Copper	47.0	0.448	"	44.8	4.49	94.9	75-125					
Lead	32.5	0.224	"	22.4	7.89	110	75-125					
Nickel	50.2	0.448	"	44.8	3.70	104	75-125					
Selenium	5.31	0.291	"	4.48	0.761	102	75-125					
Silver	2.38	0.0224	"	2.24	0.0508	104	75-125					
Zinc	70.9	0.448	"	44.8	16.7	121	75-125					

Matrix Spike Dup (BFD0538-MSD1)	Source: 2204029-08			Prepared: 04/25/22 Analyzed: 04/30/22								
Arsenic	61.4	0.224	mg/kg dry	44.8	3.03	130	75-125	7.35	25			QM-05
Barium	228	0.448	"	44.8	159	156	75-125	3.98	25			QM-05
Cadmium	2.72	0.224	"	2.24	0.168	114	75-125	2.24	25			
Copper	49.0	0.448	"	44.8	4.49	99.3	75-125	4.09	25			
Lead	31.5	0.224	"	22.4	7.89	105	75-125	3.34	25			
Nickel	51.5	0.448	"	44.8	3.70	107	75-125	2.65	25			
Selenium	5.32	0.291	"	4.48	0.761	102	75-125	0.112	25			
Silver	2.28	0.0224	"	2.24	0.0508	99.2	75-125	4.35	25			
Zinc	75.8	0.448	"	44.8	16.7	132	75-125	6.72	25			QM-05

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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BFD0388 - 3060A Mod

Blank (BFD0388-BLK1)

Prepared & Analyzed: 04/19/22

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BFD0388-BS1)

Prepared & Analyzed: 04/19/22

Chromium, Hexavalent 25.6 0.30 mg/kg wet 25.0 102 80-120

Duplicate (BFD0388-DUP1)

Source: 2202321-08

Prepared & Analyzed: 04/19/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BFD0388-MS1)

Source: 2202321-08

Prepared & Analyzed: 04/19/22

Chromium, Hexavalent 26.3 0.30 mg/kg dry 26.2 ND 100 75-125

Matrix Spike Dup (BFD0388-MSD1)

Source: 2202321-08

Prepared & Analyzed: 04/19/22

Chromium, Hexavalent 29.5 0.30 mg/kg dry 26.2 ND 113 75-125 11.6 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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0233 - General Preparation

Blank (BFD0233-BLK1)

Prepared: 04/12/22 Analyzed: 04/16/22

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

LCS (BFD0233-BS1)

Prepared: 04/12/22 Analyzed: 04/16/22

Calcium	5.50	0.0500	mg/L wet	5.00	110	70-130				
Magnesium	6.38	0.0500	"	5.00	128	70-130				
Sodium	6.19	0.0500	"	5.00	124	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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0201 - General Preparation

Duplicate (BFD0201-DUP1)		Source: 2204025-01			Prepared & Analyzed: 04/11/22			
% Solids	94.5		%		95.3		0.836	20

Batch BFD0421 - General Preparation

Duplicate (BFD0421-DUP1)		Source: 2202321-08			Prepared & Analyzed: 04/20/22			
% Solids	95.4		%		95.6		0.151	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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0251 - General Preparation

Blank (BFD0251-BLK1)

Prepared & Analyzed: 04/13/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFD0251-BS1)

Prepared & Analyzed: 04/13/22

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

Duplicate (BFD0251-DUP1)

Source: 2204029-01

Prepared & Analyzed: 04/13/22

Specific Conductance (EC) 0.276 0.0100 mmhos/cm 0.278 0.506 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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN
Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

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 BFD0252 - General Preparation

LCS (BFD0252-BS1)

Prepared & Analyzed: 04/13/22

pH 9.07 pH Units 9.18 98.8 95-105

Duplicate (BFD0252-DUP1)

Source: 2204029-01

Prepared & Analyzed: 04/13/22

pH 7.54 pH Units 7.43 1.47 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 - Lilli Unit 10-12 (Fac)

Project Number: UWRWE-A1788-ABN

Project Manager: Jacob Whritenour

Reported:
05/02/22 12:12

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- R-01 The Reporting Limit for this analyte has been raised to account for matrix interference.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- 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