



Third Party Removal Date									
Sample taken? Location/ Sample									
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)	9				

Other observations regarding other facility or third party equipment:

Sample taken below Burner. (Flare01@0.5')

### Summary

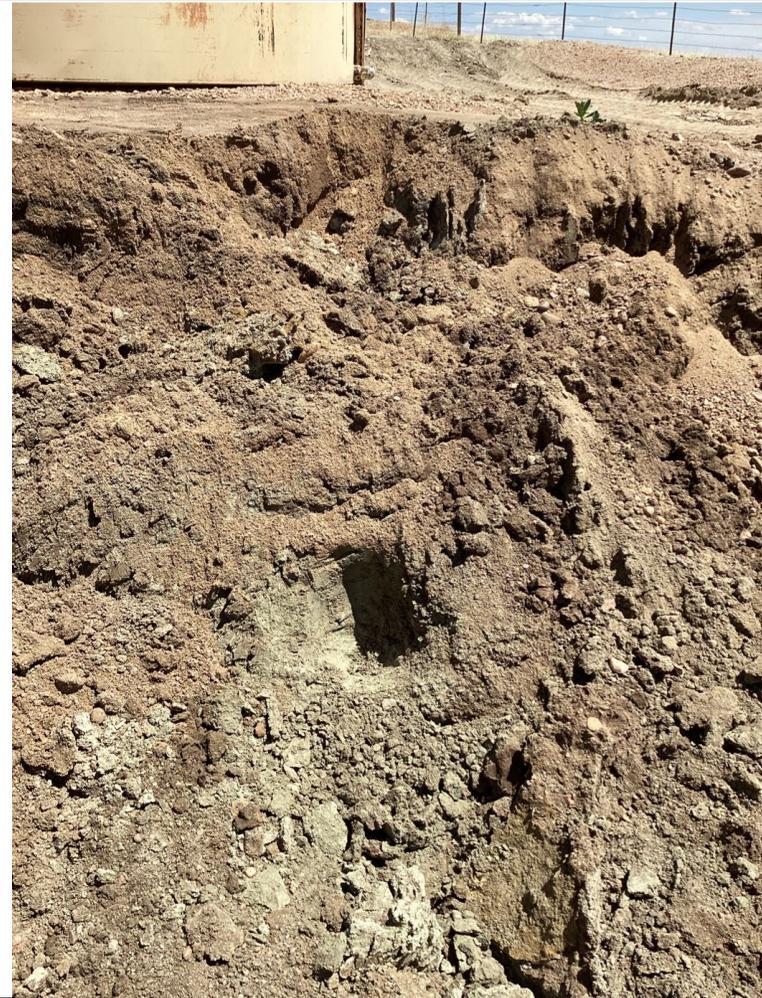
Was impacted soil identified?	
<b>No</b>	Yes - less than 10 cubic yards      Yes - more than 10 cubic yards
Total number of samples field screened: 14	Total number of samples collected: 14
Highest PID Reading: 25.7	Total number of samples submitted to lab for analysis: 10
If more than 10 cubic yards 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?	
<b>No</b>	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 <b>No</b>	Volume of groundwater removed prior to sampling:
Free product observed?      Yes <b>No</b>	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**



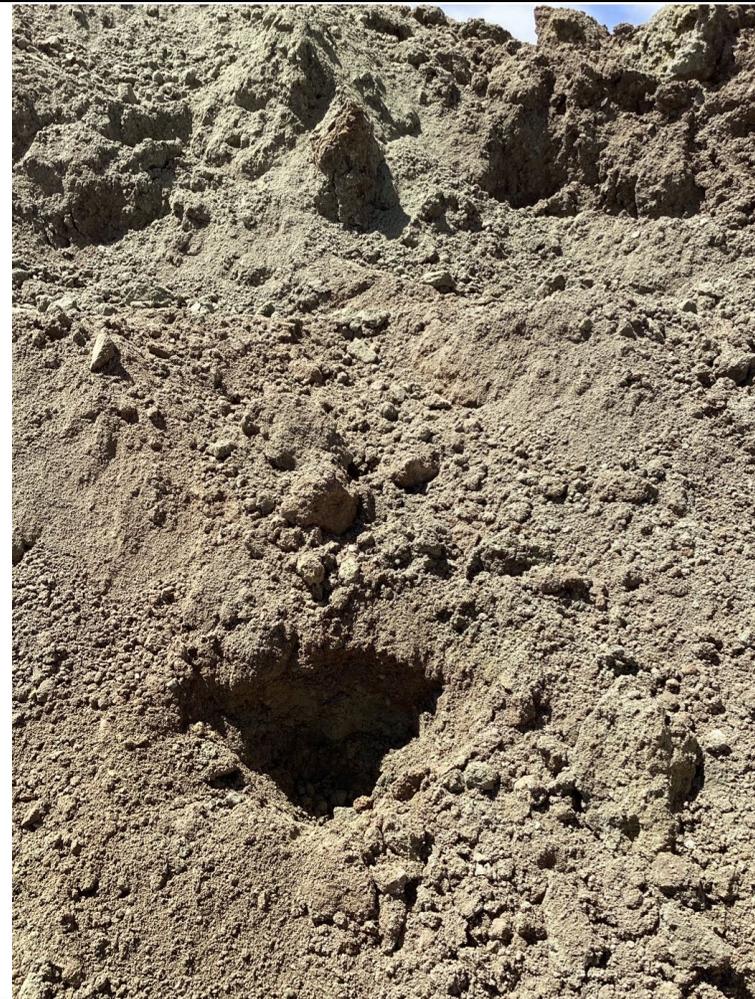
<b>Equipment ID:</b> SEP01-FL@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> SEP01@0.5'		<b>Equipment Type:</b> Separator	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b>				<b>Notes/Conditions:</b>			

**Photographic Log**



<b>Equipment ID:</b> SS01@3'		<b>Equipment Type:</b>		<b>Equipment ID:</b> SS02@3'		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b>				<b>Notes/Conditions:</b>			

**Photographic Log**



<b>Equipment ID:</b> SS03@3'		<b>Equipment Type:</b>		<b>Equipment ID:</b> SS04@3'		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b>				<b>Notes/Conditions:</b>			

**Photographic Log**



<b>Equipment ID:</b> FS01@4'		<b>Equipment Type:</b>		<b>Equipment ID:</b> AST01@0.5'		<b>Equipment Type:</b> Above Ground Storage Tank	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b>				<b>Notes/Conditions:</b>			

**Photographic Log**



<b>Equipment ID:</b> AST02@0.5'	<b>Equipment Type:</b> Above Ground Storage Tank	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water
<b>Notes/Conditions:</b>		

<b>Equipment ID:</b> AST03@0.5'	<b>Equipment Type:</b> Above Ground Storage Tank	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water
<b>Notes/Conditions:</b>		

**Photographic Log**



<b>Equipment ID:</b> Flare01 @0.5'	<b>Equipment Type:</b> Emission Control Device	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water
<b>Notes/Conditions:</b>		

<b>Equipment ID:</b> SEP01-DL	<b>Equipment Type:</b> Dump Line	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water
<b>Notes/Conditions:</b>		

**Photographic Log**



<b>Equipment ID:</b> BG01@2.5'		<b>Equipment Type:</b>		<b>Equipment ID:</b> BG02@5'		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b>				<b>Notes/Conditions:</b>			

**TABLE 1**  
**SOIL SAMPLE LOCATIONS**  
**NOBLE ENERGY, INC. - LILLI UNIT C-9**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude <sup>1</sup>	Longitude	PDOP
SEP01-FL@4'	05/18/22	4.0	No Staining	No Odor	Lab	40.68369282	-103.8694495	1.2
SEP01@0.5'	05/18/22	0.7	No Staining	No Odor	Lab	40.68367494	-103.8694550	1.2
SS01@3'	05/18/22	0.6	No Staining	No Odor	Lab	40.68372992	-103.8699428	1.1
SS02@3'	05/18/22	0.2	No Staining	No Odor	Grab	40.68370102	-103.8698860	1.1
SS03@3'	05/18/22	0.1	No Staining	No Odor	Grab	40.68368073	-103.8699364	1.3
SS04@3'	05/18/22	0.3	No Staining	No Odor	Grab	40.68371172	-103.8699550	1.3
FS01@4'	05/18/22	0.5	No Staining	No Odor	Lab	40.68369840	-103.8699401	1.3
AST01@0.5'	05/18/22	0.5	No Staining	No Odor	Lab	40.68373341	-103.8697700	1.3
AST02@0.5'	05/18/22	0.3	No Staining	No Odor	Lab	40.68372035	-103.8698528	1.1
AST03@0.5'	05/18/22	0.2	No Staining	No Odor	Lab	40.68370390	-103.8699005	1.1
Flare01@1'	05/18/22	0.4	No Staining	No Odor	Grab	40.68364393	-103.8695352	1.2
SEP01-DL@4'	05/18/22	25.7	No Staining	No Odor	Lab	40.68369781	-103.8694415	1.2
BG01@2.5'	05/18/22	0.0	No Staining	No Odor	Lab	40.68386300	-103.8698999	1.1
BG02@5'	05/18/22	0.6	No Staining	HC Odor	Lab	40.68385885	-103.8698825	1.1

Notes:

PID = Photo-ionization detector

ppm = parts per million

PDOP = Position dilution of precision

HC = Hydrocarbon

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

TABLE 2  
SOIL ANALYTICAL DATA  
NOBLE ENERGY, INC. - LILLI UNIT C-9

Soil Sample ID	Date	<sup>1</sup> 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 <sup>2</sup>		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 <sup>2,3</sup>		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
SEP01-FL@4'	05/18/22	<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
SEP01@0.5'	05/18/22	<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
SS01@3'	05/18/22	<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@4'	05/18/22	<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
AST01@0.5'	05/18/22	<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
AST02@0.5'	05/18/22	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	63	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0139	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
AST03@0.5'	05/18/22	<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
SEP01-DL@4'	05/18/22	0.014	0.049	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	0.0126	<0.00500	<0.00500	<0.00500	<0.00500	0.0231	<0.00500	<0.00500	0.0272	<0.00500	<0.00500

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL <sup>2</sup>		6 - 8.3	<6	<4mmhos/cm	2
SEP01-FL@4'	05/18/22	8.03	0.162	0.59	0.0675
SEP01@0.5'	05/18/22	8.14	0.159	0.387	0.111
SS01@3'	05/18/22	8.34	0.124	0.326	0.0893
FS01@4'	05/18/22	8.49	0.173	0.331	0.120
AST01@0.5'	05/18/22	8.10	0.0596	0.349	0.0432
AST02@0.5'	05/18/22	8.23	0.0431	0.252	0.0766
AST03@0.5'	05/18/22	8.68	0.0358	0.168	0.0241
SEP01-DL@4'	05/18/22	8.04	0.109	0.438	0.0625
BG01@2.5'	05/18/22	8.71	NA	NA	NA
BG02@5'	05/18/22	8.71	NA	NA	NA

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 <sup>2</sup>		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
SEP01-FL@4'	05/18/22	3.56	78.0	<0.262	<0.30	7.86	6.96	7.31	0.871	<0.0262	24.5
SEP01-DL@4'	05/18/22	4.57	61.6	0.435	<0.30	14.0	8.37	5.00	0.475	<0.0238	28.9
BG02@5'	05/18/22	13.6	36.6	<0.208	<0.30	2.45	3.56	3.09	0.634	<0.0208	7.31

Notes:

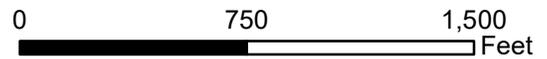
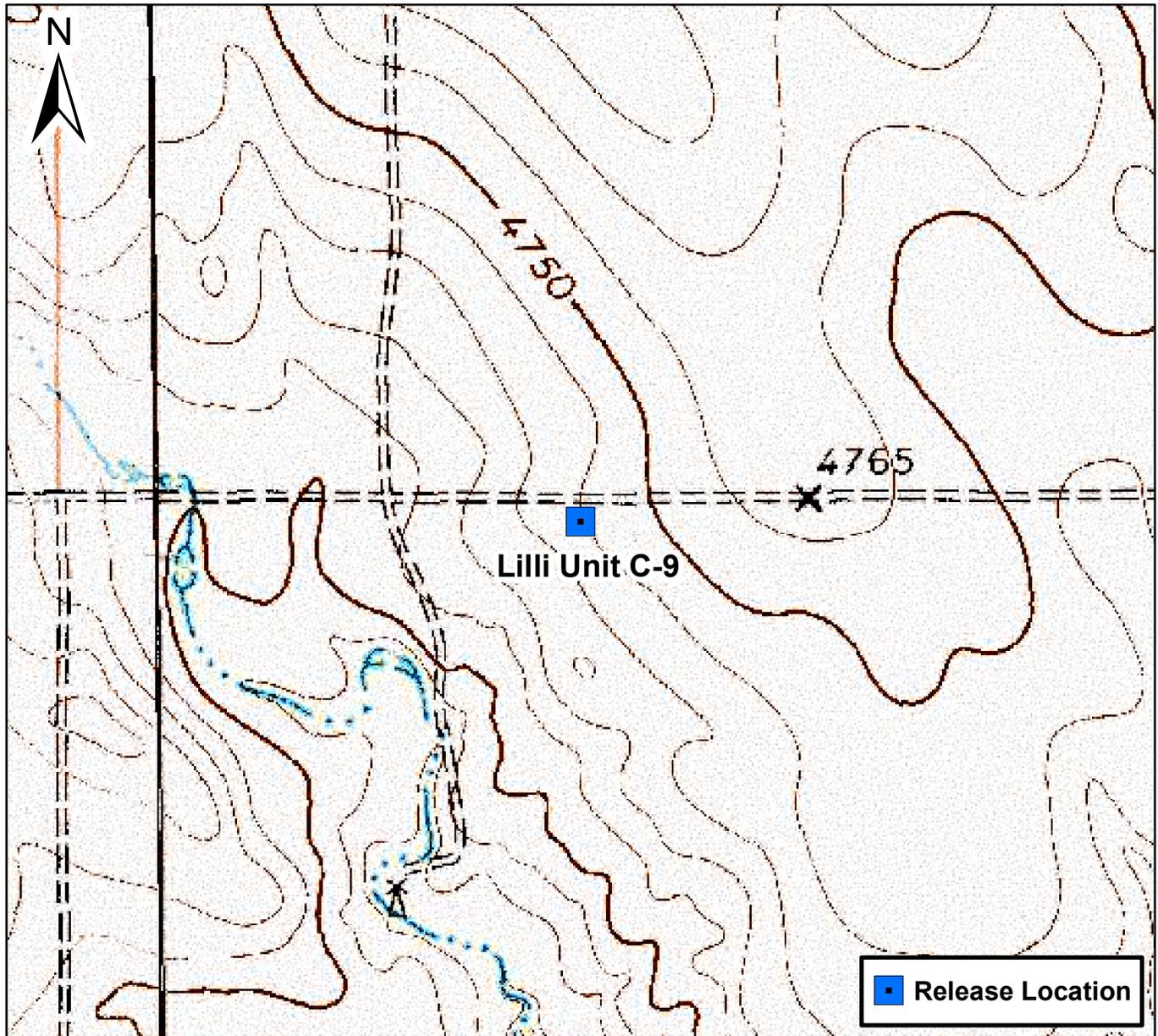
- Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater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

Definitions:

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

1,2,4 - TMB = 1,2,4 Trimethylbenzene  
 1,3,5 - TMB = 1,3,5 Trimethylbenzene  
 Benz(a) = Benzantracene  
 Benzo(b) = Benzofluoranthene  
 Benzo(k) = Benzofluoranthene  
 Benzo(a) = Benzopyrene  
 A,H = Dibenzoanthracene  
 1,2,3-CD = Indenopyrene  
 1-M = 1-methylnaphthalene  
 2-M = 2-methylnaphthalene  
 NA = Not Analyzed

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



### Figure 1

Site Location Map  
 Lilli Unit C-9  
 NENW S9 T8N R58W  
 Weld County, Colorado



Drawn By: LR  
 Date: 6/3/2022



DATE:	6/3/2022
DESIGNED BY:	JW
DRAWN BY:	JW



**TASMAN**  
GEOSCIENCES

Tasman Geosciences, Inc.  
6855 W 119<sup>th</sup> Avenue  
Broomfield, CO 80020

**Noble Energy, Inc. – DJ Basin**  
**Lilli Unit C-9**  
NWNW, Section 9, Township 8 North, Range 58 West  
Weld County, Colorado

Facility Closure Soil  
Analytical Results Map  
(05/18/2022)

FIGURE  
2

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 25, 2022

Jacob Whritenour  
Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield, CO 80020  
RE: Noble - Lilli Unit C-9  
Work Order #2205302

Enclosed are the results of analyses for samples received by Summit Scientific on 05/18/22 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury  
President



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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-FL@4'	2205302-01	Soil	05/18/22 13:35	05/18/22 18:00
SEP01@0.5'	2205302-02	Soil	05/18/22 13:40	05/18/22 18:00
SS01@3'	2205302-03	Soil	05/18/22 13:55	05/18/22 18:00
FS01@4'	2205302-07	Soil	05/18/22 14:12	05/18/22 18:00
AST01@0.5'	2205302-08	Soil	05/18/22 14:16	05/18/22 18:00
AST02@0.5'	2205302-09	Soil	05/18/22 14:18	05/18/22 18:00
AST03@0.5'	2205302-10	Soil	05/18/22 14:20	05/18/22 18:00
SEP01-DL@4'	2205302-11	Soil	05/18/22 00:00	05/18/22 18:00
BG01@2.5'	2205302-12	Soil	05/18/22 00:00	05/18/22 18:00
BG02@5'	2205302-13	Soil	05/18/22 00:00	05/18/22 18:00

Summit Scientific

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



2205302.2

# Summit Scientific

S<sub>2</sub>

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

Client: Noble / Tasman	Project Manager: Jacob Whritenour	Invoice: <u>Jeff White</u>
Address: 6855 W. 119th Ave	E-Mail: <u>jwhritenour@tasman-geo.com</u>	
City/State/Zip: Broomfield/ CO/ 80020	Project Name: <u>Lilli Unit C-9</u>	
Phone: 503-915-3046	Project Number:	
Sampler Name: Martin Medeiros		

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	<del>Home 01 @ 1'</del>	5/18/22		2			X			X			X	X	X	X	X		SAR, EC, PH by saturated paste
2	SEP01-DL @ 4'	↓		↓															
3	BG01 @ 2.5'	↓		↓														X	
4	BG02 @ 5'	↓		↓														X	
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: <u>Martin Medeiros</u> Date/Time: <u>5/18 5:53</u>	Received by: <u>Tasman's Lock Box</u> Date/Time: _____	<b>Turn Around Time (Check)</b> Same Day _____ 72 hours _____ 24 hours _____ Standard <u>X</u> 48 hours _____	<b>Notes:</b>  Sample Integrity: Temperature Upon Receipt: <u>8.4</u> Samples Intact: <u>(Yes)</u> No
Relinquished by: <u>Tasman's Lock Box</u> Date/Time: <u>5/18/22 1400</u>	Received by: <u>[Signature]</u> Date/Time: <u>5/18/22 1800</u>	<b>Sample Integrity:</b> Temperature Upon Receipt: <u>8.4</u> Samples Intact: <u>(Yes)</u> No	
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	<b>Sample Integrity:</b> Temperature Upon Receipt: _____ Samples Intact: _____	

S<sub>2</sub>

2/2  
Sample Receipt Checklist

S2 Work Order# 2205302

Client: Noble/Husman Client Project ID: Lilli unit C-9

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

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

Temp (°C)  Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C <sup>(1)</sup> ? 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 <sup>(1)</sup> ?	-			
Was adequate sample volume provided <sup>(1)</sup> ?	-			
If custody seals are present, are they intact <sup>(1)</sup> ?	-			
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 <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , 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 <sup>(1)</sup> ?	-			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	-			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	-			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	

Additional Comments (if any):

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

[Signature]  
Custodian Printed Name

51822  
Date/Time



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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-FL@4'**  
**2205302-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0431	108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	104 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFE0452	05/20/22	05/20/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	14.0	112 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-FL@4'**  
**2205302-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/24/22	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: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0225	67.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0209	62.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0675</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-FL@4'**  
**2205302-01 (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	2550	0.0654	mg/L dry	1	BFE0572	05/25/22	05/28/22	EPA 6020B	
Magnesium	275	0.0654	"	"	"	"	"	"	
Sodium	32.3	0.0654	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.162	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	76.4		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.590	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01@0.5'**  
**2205302-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0435	109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFE0452	05/20/22	05/20/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.7	109 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01@0.5'**  
**2205302-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/24/22	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: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0220	65.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0178	53.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.111</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 13:40**

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01@0.5'**  
**2205302-02 (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	1230	0.0575	mg/L dry	1	BFE0572	05/25/22	05/28/22	EPA 6020B	
Magnesium	107	0.0575	"	"	"	"	"	"	
Sodium	21.7	0.0575	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.159	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.9		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.387	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.14		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SS01@3'**  
**2205302-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0430	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0452	05/20/22	05/20/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.7	118 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SS01@3'**  
**2205302-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/24/22	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: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0261	78.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0210	62.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0893</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SS01@3'**  
**2205302-03 (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	1360	0.0610	mg/L dry	1	BFE0572	05/25/22	05/28/22	EPA 6020B	
Magnesium	148	0.0610	"	"	"	"	"	"	
Sodium	18.0	0.0610	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.124	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.0		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.326	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.34		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**FS01@4'**  
**2205302-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0444	111 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0428	107 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0452	05/20/22	05/20/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.3	114 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**FS01@4'**  
**2205302-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/24/22	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: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0228	68.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	57.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.120</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 14:12**

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**FS01@4'**  
**2205302-07 (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	1420	0.0584	mg/L dry	1	BFE0572	05/25/22	05/28/22	EPA 6020B	
Magnesium	161	0.0584	"	"	"	"	"	"	
Sodium	25.8	0.0584	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.173	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.6		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.331	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.49		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST01@0.5'**  
**2205302-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0419	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0420	105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0452	05/20/22	05/21/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.6	117 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST01@0.5'**  
**2205302-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/24/22	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: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0228	68.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0218	65.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0432</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 14:16**

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST01@0.5'**  
**2205302-08 (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	2060	0.0672	mg/L dry	1	BFE0572	05/25/22	05/28/22	EPA 6020B	
Magnesium	149	0.0672	"	"	"	"	"	"	
Sodium	10.4	0.0672	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0596	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	74.4		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.349	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST02@0.5'**  
**2205302-09 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>63</b>	50	mg/kg	1	BFE0452	05/20/22	05/21/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.5	116 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST02@0.5'**  
**2205302-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/25/22	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	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.0139</b>	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: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0233	70.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0210	63.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0766</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 14:18**

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST02@0.5'**  
**2205302-09 (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	1380	0.0614	mg/L dry	1	BFE0572	05/25/22	05/28/22	EPA 6020B	
Magnesium	87.4	0.0614	"	"	"	"	"	"	
Sodium	6.11	0.0614	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0431	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.4		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.252	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 14:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST03@0.5'**  
**2205302-10 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFE0451	05/20/22	05/20/22	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: **05/18/22 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0445	111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	106 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFE0452	05/20/22	05/21/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.7	109 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST03@0.5'**  
**2205302-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/25/22	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: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0252	75.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0241	72.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0241</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

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

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**AST03@0.5'**  
**2205302-10 (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	438	0.0521	mg/L dry	1	BFE0572	05/25/22	05/29/22	EPA 6020B	
Magnesium	41.1	0.0521	"	"	"	"	"	"	
Sodium	2.92	0.0521	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0358	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.9		%	1	BFE0607	05/26/22	05/27/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.168	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.68		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-DL@4'**  
**2205302-11 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.014</b>	0.0020	mg/kg	1	BFE0451	05/20/22	05/20/22	EPA 8260B	
<b>Toluene</b>	<b>0.049</b>	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: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0389	97.4 %	50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0408	102 %	50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0414	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0452	05/20/22	05/21/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>	14.8	118 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-DL@4'**  
**2205302-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	ND	0.00500	mg/kg	1	BFE0487	05/23/22	05/25/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	"
<b>Benzo (a) pyrene</b>	<b>0.0126</b>	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	"	"	"	"	"	"	"
<b>Fluoranthene</b>	<b>0.0231</b>	0.00500	"	"	"	"	"	"	"
Fluorene	ND	0.00500	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	"
<b>Pyrene</b>	<b>0.0272</b>	0.00500	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	"

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0213	63.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Boron</b>	<b>0.0625</b>	0.0100	mg/L	1	BFE0581	05/25/22	05/30/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-DL@4'**  
**2205302-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.57	0.238	mg/kg dry	1	BFH0451	08/22/22	08/23/22	EPA 6020B	
Barium	61.6	0.476	"	"	"	"	"	"	
Cadmium	0.435	0.238	"	"	"	"	"	"	
Copper	14.0	0.476	"	"	"	"	"	"	
Lead	8.37	0.238	"	"	"	"	"	"	
Nickel	5.00	0.476	"	"	"	"	"	"	
Selenium	0.475	0.309	"	"	"	"	"	"	
Silver	ND	0.0238	"	"	"	"	"	"	
Zinc	28.9	0.476	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFH0478	08/23/22	08/24/22	EPA 7196A	I-02

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

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1390	0.0594	mg/L dry	1	BFE0572	05/25/22	05/29/22	EPA 6020B	
Magnesium	146	0.0594	"	"	"	"	"	"	
Sodium	16.0	0.0594	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.109	0.00100	units	1	BFE0686	05/29/22	05/29/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 00:00**

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**SEP01-DL@4'**  
**2205302-11 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

<b>% Solids</b>	<b>84.1</b>	%	1	BFE0607	05/26/22	05/27/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.438</b>	0.0100	mmhos/cm	1	BFE0574	05/25/22	05/26/22	EPA 120.1	

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

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.04</b>		pH Units	1	BFE0573	05/25/22	05/26/22	EPA 9045D	

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 6855 W. 119th Ave.  
 Broomfield CO, 80020

Project: Noble - Lilli Unit C-9

Project Number: [none]  
 Project Manager: Jacob Whritenour

**Reported:**  
 08/25/22 08:05

**BG01@2.5'**  
**2205302-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.71</b>		pH Units	1	BFF0206	06/08/22	06/09/22	EPA 9045D	I-02

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**BG02@5'**  
**2205302-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>13.6</b>	0.208	mg/kg dry	1	BFF0105	06/03/22	06/07/22	EPA 6020B	
<b>Barium</b>	<b>36.6</b>	0.415	"	"	"	"	"	"	
Cadmium	ND	0.208	"	"	"	"	"	"	
<b>Copper</b>	<b>2.45</b>	0.415	"	"	"	"	"	"	
<b>Lead</b>	<b>3.56</b>	0.208	"	"	"	"	"	"	
<b>Nickel</b>	<b>3.09</b>	0.415	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.634</b>	0.270	"	"	"	"	"	"	
Silver	ND	0.0208	"	"	"	"	"	"	
<b>Zinc</b>	<b>7.31</b>	0.415	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFF0138	06/06/22	06/06/22	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>% Solids</b>	<b>96.3</b>		%	1	BFF0143	06/06/22	06/06/22	Calculation	

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

Date Sampled: **05/18/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.71</b>		pH Units	1	BFF0206	06/08/22	06/09/22	EPA 9045D	I-02

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

### 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 BFE0451 - EPA 5030 Soil MS

##### Blank (BFE0451-BLK1)

Prepared & Analyzed: 05/20/22

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	"								
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	50-150				
Surrogate: Toluene-d8	0.0410		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	50-150				

##### LCS (BFE0451-BS1)

Prepared & Analyzed: 05/20/22

Benzene	0.118	0.0020	mg/kg	0.125		94.8	70-130				
Toluene	0.115	0.0050	"	0.125		91.9	70-130				
Ethylbenzene	0.113	0.0050	"	0.125		90.0	70-130				
m,p-Xylene	0.218	0.010	"	0.250		87.2	70-130				
o-Xylene	0.109	0.0050	"	0.125		87.2	70-130				
1,2,4-Trimethylbenzene	0.116	0.0050	"	0.125		92.4	70-130				
1,3,5-Trimethylbenzene	0.115	0.0050	"	0.125		91.7	70-130				
Naphthalene	0.107	0.0038	"	0.125		85.2	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0429		"	0.0400		107	50-150				
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0408		"	0.0400		102	50-150				

##### Matrix Spike (BFE0451-MS1)

Source: 2205301-01

Prepared & Analyzed: 05/20/22

Benzene	0.128	0.0020	mg/kg	0.125	ND	102	70-130				
Toluene	0.125	0.0050	"	0.125	ND	99.8	70-130				
Ethylbenzene	0.117	0.0050	"	0.125	ND	93.6	70-130				
m,p-Xylene	0.227	0.010	"	0.250	0.00519	88.7	70-130				
o-Xylene	0.113	0.0050	"	0.125	ND	90.1	70-130				
1,2,4-Trimethylbenzene	0.123	0.0050	"	0.125	ND	98.5	70-130				
1,3,5-Trimethylbenzene	0.121	0.0050	"	0.125	ND	96.7	70-130				
Naphthalene	0.125	0.0038	"	0.125	ND	100	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0478		"	0.0400		120	50-150				
Surrogate: Toluene-d8	0.0428		"	0.0400		107	50-150				
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400		103	50-150				

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFE0451 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BFE0451-MSD1)</b>	<b>Source: 2205301-01</b>			<b>Prepared &amp; Analyzed: 05/20/22</b>						
Benzene	0.123	0.0020	mg/kg	0.125	ND	98.5	70-130	3.61	30	
Toluene	0.117	0.0050	"	0.125	ND	93.4	70-130	6.61	30	
Ethylbenzene	0.115	0.0050	"	0.125	ND	91.7	70-130	2.12	30	
m,p-Xylene	0.223	0.010	"	0.250	0.00519	87.0	70-130	1.85	30	
o-Xylene	0.111	0.0050	"	0.125	ND	88.8	70-130	1.53	30	
1,2,4-Trimethylbenzene	0.117	0.0050	"	0.125	ND	93.3	70-130	5.43	30	
1,3,5-Trimethylbenzene	0.116	0.0050	"	0.125	ND	92.8	70-130	4.20	30	
Naphthalene	0.111	0.0038	"	0.125	ND	89.2	70-130	11.7	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0458</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0428</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>50-150</i>			

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BFE0452 - EPA 3550A**

**Blank (BFE0452-BLK1)**

Prepared & Analyzed: 05/20/22

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

**LCS (BFE0452-BS1)**

Prepared & Analyzed: 05/20/22

C10-C28 (DRO)	441	50	mg/kg	500	88.1	70-130				
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**Matrix Spike (BFE0452-MS1)**

Source: 2205301-01

Prepared & Analyzed: 05/20/22

C10-C28 (DRO)	417	50	mg/kg	500	7.93	81.9	70-130			
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**Matrix Spike Dup (BFE0452-MSD1)**

Source: 2205301-01

Prepared & Analyzed: 05/20/22

C10-C28 (DRO)	432	50	mg/kg	500	7.93	84.8	70-130	3.43	20	
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Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFE0487 - EPA 5030 Soil MS**

**Blank (BFE0487-BLK1)**

Prepared: 05/23/22 Analyzed: 05/24/22

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>	0.0278		"	0.0333		83.5	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0241		"	0.0333		72.2	40-150			

**LCS (BFE0487-BS1)**

Prepared: 05/23/22 Analyzed: 05/24/22

Acenaphthene	0.0299	0.00500	mg/kg	0.0333		89.7	31-137			
Anthracene	0.0313	0.00500	"	0.0333		93.8	30-120			
Benzo (a) anthracene	0.0282	0.00500	"	0.0333		84.8	30-120			
Benzo (a) pyrene	0.0293	0.00500	"	0.0333		87.9	30-120			
Benzo (b) fluoranthene	0.0289	0.00500	"	0.0333		86.7	30-120			
Benzo (k) fluoranthene	0.0320	0.00500	"	0.0333		96.0	30-120			
Chrysene	0.0309	0.00500	"	0.0333		92.6	30-120			
Dibenz (a,h) anthracene	0.0293	0.00500	"	0.0333		88.0	30-120			
Fluoranthene	0.0336	0.00500	"	0.0333		101	30-120			
Fluorene	0.0288	0.00500	"	0.0333		86.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0283	0.00500	"	0.0333		85.0	30-120			
Pyrene	0.0302	0.00500	"	0.0333		90.6	35-142			
1-Methylnaphthalene	0.0265	0.00500	"	0.0333		79.5	35-142			
2-Methylnaphthalene	0.0283	0.00500	"	0.0333		84.9	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0289		"	0.0333		86.7	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0311		"	0.0333		93.3	40-150			

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFE0487 - EPA 5030 Soil MS**

<b>Matrix Spike (BFE0487-MS1)</b>	<b>Source: 2205289-01</b>			<b>Prepared: 05/23/22 Analyzed: 05/27/22</b>						
Acenaphthene	0.0282	0.00500	mg/kg	0.0333	ND	84.5	31-137			
Anthracene	0.0278	0.00500	"	0.0333	ND	83.5	30-120			
Benzo (a) anthracene	0.0286	0.00500	"	0.0333	ND	85.9	30-120			
Benzo (a) pyrene	0.0190	0.00500	"	0.0333	ND	57.1	30-120			QM-07
Benzo (b) fluoranthene	0.0245	0.00500	"	0.0333	ND	73.5	30-120			
Benzo (k) fluoranthene	0.0281	0.00500	"	0.0333	ND	84.2	30-120			
Chrysene	0.0286	0.00500	"	0.0333	ND	85.9	30-120			
Dibenz (a,h) anthracene	0.0226	0.00500	"	0.0333	ND	67.9	30-120			
Fluoranthene	0.0277	0.00500	"	0.0333	ND	83.0	30-120			
Fluorene	0.0286	0.00500	"	0.0333	ND	85.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0176	0.00500	"	0.0333	ND	52.7	30-120			
Pyrene	0.0283	0.00500	"	0.0333	ND	84.8	35-142			
1-Methylnaphthalene	0.0284	0.00500	"	0.0333	ND	85.2	15-130			
2-Methylnaphthalene	0.0269	0.00500	"	0.0333	ND	80.6	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0391</i>		<i>"</i>	<i>0.0333</i>		<i>117</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0287</i>		<i>"</i>	<i>0.0333</i>		<i>86.0</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BFE0487-MSD1)</b>	<b>Source: 2205289-01</b>			<b>Prepared: 05/23/22 Analyzed: 05/27/22</b>						
Acenaphthene	0.0307	0.00500	mg/kg	0.0333	ND	92.0	31-137	8.43	30	
Anthracene	0.0318	0.00500	"	0.0333	ND	95.5	30-120	13.5	30	
Benzo (a) anthracene	0.0329	0.00500	"	0.0333	ND	98.6	30-120	13.8	30	
Benzo (a) pyrene	0.0267	0.00500	"	0.0333	ND	80.1	30-120	33.5	30	QM-07
Benzo (b) fluoranthene	0.0267	0.00500	"	0.0333	ND	80.1	30-120	8.52	30	
Benzo (k) fluoranthene	0.0302	0.00500	"	0.0333	ND	90.5	30-120	7.24	30	
Chrysene	0.0324	0.00500	"	0.0333	ND	97.2	30-120	12.4	30	
Dibenz (a,h) anthracene	0.0234	0.00500	"	0.0333	ND	70.2	30-120	3.32	30	
Fluoranthene	0.0313	0.00500	"	0.0333	ND	93.8	30-120	12.3	30	
Fluorene	0.0317	0.00500	"	0.0333	ND	95.2	30-120	10.2	30	
Indeno (1,2,3-cd) pyrene	0.0206	0.00500	"	0.0333	ND	61.7	30-120	15.8	30	
Pyrene	0.0322	0.00500	"	0.0333	ND	96.6	35-142	12.9	30	
1-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.8	15-130	36.6	50	
2-Methylnaphthalene	0.0276	0.00500	"	0.0333	ND	82.7	15-130	2.55	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0412</i>		<i>"</i>	<i>0.0333</i>		<i>124</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0328</i>		<i>"</i>	<i>0.0333</i>		<i>98.4</i>	<i>40-150</i>			

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

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

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

**Batch BFE0581 - EPA 3050B**

**Blank (BFE0581-BLK1)**

Prepared: 05/25/22 Analyzed: 05/30/22

Boron ND 0.0100 mg/L

**LCS (BFE0581-BS1)**

Prepared: 05/25/22 Analyzed: 05/30/22

Boron 5.56 0.0100 mg/L 5.00 111 80-120

**Duplicate (BFE0581-DUP1)**

Source: 2205302-01

Prepared: 05/25/22 Analyzed: 05/30/22

Boron 0.0661 0.0100 mg/L 0.0675 2.18 20

**Matrix Spike (BFE0581-MS1)**

Source: 2205302-01

Prepared: 05/25/22 Analyzed: 05/30/22

Boron 5.54 0.0100 mg/L 5.00 0.0675 109 75-125

**Matrix Spike Dup (BFE0581-MSD1)**

Source: 2205302-01

Prepared: 05/25/22 Analyzed: 05/30/22

Boron 5.83 0.0100 mg/L 5.00 0.0675 115 75-125 5.15 25

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BFF0105 - EPA 3050B**

**Blank (BFF0105-BLK1)**

Prepared: 06/03/22 Analyzed: 06/07/22

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 (BFF0105-BS1)**

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	8.60	0.200	mg/kg wet	8.00	107	80-120
Barium	8.64	0.400	"	8.00	108	80-120
Cadmium	0.476	0.200	"	0.400	119	80-120
Copper	8.32	0.400	"	8.00	104	80-120
Lead	4.52	0.200	"	4.00	113	80-120
Nickel	8.27	0.400	"	8.00	103	80-120
Selenium	0.803	0.260	"	0.800	100	80-120
Silver	0.463	0.0200	"	0.400	116	80-120
Zinc	8.65	0.400	"	8.00	108	80-120

**Duplicate (BFF0105-DUP1)**

Source: 2203107-01

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	0.431	0.205	mg/kg dry	0.460	6.43	20
Barium	12.3	0.411	"	13.3	8.01	20
Cadmium	0.0241	0.205	"	0.0269	11.0	20
Copper	1.26	0.411	"	1.30	3.36	20
Lead	1.37	0.205	"	1.58	14.1	20
Nickel	1.12	0.411	"	1.29	14.5	20
Selenium	0.196	0.267	"	0.315	46.3	20
Silver	0.00723	0.0205	"	0.00702	2.96	20
Zinc	5.28	0.411	"	5.07	4.09	20

QR-01

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFF0105 - EPA 3050B**

**Matrix Spike (BFF0105-MS1)**

Source: 2203107-01

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	9.32	0.205	mg/kg dry	8.22	0.460	108	75-125			
Barium	21.5	0.411	"	8.22	13.3	99.2	75-125			
Cadmium	0.494	0.205	"	0.411	0.0269	114	75-125			
Copper	9.71	0.411	"	8.22	1.30	102	75-125			
Lead	5.88	0.205	"	4.11	1.58	105	75-125			
Nickel	9.73	0.411	"	8.22	1.29	103	75-125			
Selenium	0.998	0.267	"	0.822	0.315	83.1	75-125			
Silver	0.461	0.0205	"	0.411	0.00702	111	75-125			
Zinc	14.6	0.411	"	8.22	5.07	116	75-125			

**Matrix Spike Dup (BFF0105-MSD1)**

Source: 2203107-01

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	8.72	0.205	mg/kg dry	8.22	0.460	100	75-125	6.74	25
Barium	20.7	0.411	"	8.22	13.3	89.6	75-125	3.73	25
Cadmium	0.460	0.205	"	0.411	0.0269	105	75-125	7.14	25
Copper	9.26	0.411	"	8.22	1.30	96.8	75-125	4.76	25
Lead	5.52	0.205	"	4.11	1.58	95.7	75-125	6.35	25
Nickel	9.15	0.411	"	8.22	1.29	95.6	75-125	6.16	25
Selenium	1.01	0.267	"	0.822	0.315	84.5	75-125	1.14	25
Silver	0.421	0.0205	"	0.411	0.00702	101	75-125	9.17	25
Zinc	13.8	0.411	"	8.22	5.07	106	75-125	5.62	25

**Batch BFH0451 - EPA 3050B**

**Blank (BFH0451-BLK1)**

Prepared: 08/22/22 Analyzed: 08/23/22

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	"						

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFH0451 - EPA 3050B**

**LCS (BFH0451-BS1)**

Prepared: 08/22/22 Analyzed: 08/23/22

Arsenic	44.9	0.200	mg/kg wet	40.0		112	80-120			
Barium	46.0	0.400	"	40.0		115	80-120			
Cadmium	2.35	0.200	"	2.00		118	80-120			
Copper	42.6	0.400	"	40.0		107	80-120			
Lead	22.2	0.200	"	20.0		111	80-120			
Nickel	41.4	0.400	"	40.0		104	80-120			
Selenium	4.27	0.260	"	4.00		107	80-120			
Silver	2.29	0.0200	"	2.00		114	80-120			
Zinc	45.3	0.400	"	40.0		113	80-120			

**Duplicate (BFH0451-DUP1)**

Source: 2205302-11

Prepared: 08/22/22 Analyzed: 08/23/22

Arsenic	4.17	0.238	mg/kg dry		4.57			9.21	20	
Barium	74.1	0.476	"		61.6			18.4	20	
Cadmium	0.613	0.238	"		0.435			34.0	20	QR-03
Copper	14.9	0.476	"		14.0			6.36	20	
Lead	9.89	0.238	"		8.37			16.7	20	
Nickel	6.09	0.476	"		5.00			19.6	20	
Selenium	0.642	0.309	"		0.475			29.9	20	QR-03
Silver	0.0187	0.0238	"		0.0180			3.87	20	
Zinc	29.8	0.476	"		28.9			2.98	20	

**Matrix Spike (BFH0451-MS1)**

Source: 2205302-11

Prepared: 08/22/22 Analyzed: 08/23/22

Arsenic	56.8	0.238	mg/kg dry	47.6	4.57	110	75-125			
Barium	100	0.476	"	47.6	61.6	81.6	75-125			
Cadmium	3.16	0.238	"	2.38	0.435	114	75-125			
Copper	55.8	0.476	"	47.6	14.0	88.0	75-125			
Lead	32.4	0.238	"	23.8	8.37	101	75-125			
Nickel	53.9	0.476	"	47.6	5.00	103	75-125			
Selenium	5.16	0.309	"	4.76	0.475	98.5	75-125			
Silver	2.56	0.0238	"	2.38	0.0180	107	75-125			
Zinc	94.0	0.476	"	47.6	28.9	137	75-125			QM-05

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFH0451 - EPA 3050B**

<b>Matrix Spike Dup (BFH0451-MSD1)</b>	<b>Source: 2205302-11</b>			<b>Prepared: 08/22/22 Analyzed: 08/23/22</b>						
Arsenic	56.5	0.238	mg/kg dry	47.6	4.57	109	75-125	0.520	25	
Barium	109	0.476	"	47.6	61.6	98.8	75-125	7.82	25	QM-05
Cadmium	3.34	0.238	"	2.38	0.435	122	75-125	5.62	25	
Copper	55.6	0.476	"	47.6	14.0	87.5	75-125	0.371	25	
Lead	34.0	0.238	"	23.8	8.37	108	75-125	4.84	25	
Nickel	53.1	0.476	"	47.6	5.00	101	75-125	1.63	25	
Selenium	5.22	0.309	"	4.76	0.475	99.7	75-125	1.07	25	
Silver	2.70	0.0238	"	2.38	0.0180	113	75-125	5.09	25	
Zinc	81.5	0.476	"	47.6	28.9	111	75-125	14.2	25	

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BFF0138 - 3060A Mod**

<b>Blank (BFF0138-BLK1)</b>											Prepared & Analyzed: 06/06/22
Chromium, Hexavalent	ND	0.30	mg/kg wet								
<b>LCS (BFF0138-BS1)</b>											Prepared & Analyzed: 06/06/22
Chromium, Hexavalent	27.0	0.30	mg/kg wet	25.0		108	80-120				
<b>Duplicate (BFF0138-DUP1)</b>											<b>Source: 2205302-01</b> Prepared & Analyzed: 06/06/22
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND					20	
<b>Matrix Spike (BFF0138-MS1)</b>											<b>Source: 2205302-01</b> Prepared & Analyzed: 06/06/22
Chromium, Hexavalent	36.8	0.30	mg/kg dry	32.7	ND	112	75-125				
<b>Matrix Spike Dup (BFF0138-MSD1)</b>											<b>Source: 2205302-01</b> Prepared & Analyzed: 06/06/22
Chromium, Hexavalent	38.2	0.30	mg/kg dry	32.7	ND	117	75-125	3.84		20	

**Batch BFH0478 - 3060A Mod**

<b>Blank (BFH0478-BLK1)</b>											Prepared: 08/23/22 Analyzed: 08/24/22
Chromium, Hexavalent	ND	0.30	mg/kg wet								
<b>LCS (BFH0478-BS1)</b>											Prepared: 08/23/22 Analyzed: 08/24/22
Chromium, Hexavalent	24.4	0.30	mg/kg wet	25.0		97.8	80-120				
<b>Duplicate (BFH0478-DUP1)</b>											<b>Source: 2208288-08</b> Prepared: 08/23/22 Analyzed: 08/24/22
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND					20	
<b>Matrix Spike (BFH0478-MS1)</b>											<b>Source: 2208288-08</b> Prepared: 08/23/22 Analyzed: 08/24/22
Chromium, Hexavalent	27.5	0.30	mg/kg dry	27.5	ND	99.8	75-125				

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
 Project Manager: Jacob Whritenour

**Reported:**  
 08/25/22 08:05

**Hexavalent Chromium by EPA Method 7196 - Quality Control**

**Summit Scientific**

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

**Batch BFH0478 - 3060A Mod**

**Matrix Spike Dup (BFH0478-MSD1)**

Source: 2208288-08

Prepared: 08/23/22 Analyzed: 08/24/22

Chromium, Hexavalent	28.0	0.30	mg/kg dry	27.5	ND	102	75-125	1.79	20	
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

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

**Summit Scientific**

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

**Batch BFE0572 - General Preparation**

**Blank (BFE0572-BLK1)**

Prepared: 05/25/22 Analyzed: 05/28/22

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

**LCS (BFE0572-BS1)**

Prepared: 05/25/22 Analyzed: 05/28/22

Calcium	572	0.0500	mg/L wet	500		114	70-130			
Magnesium	541	0.0500	"	500		108	70-130			
Sodium	500	0.0500	"	500		100	70-130			

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFE0607 - General Preparation**

Duplicate (BFE0607-DUP1)	Source: 2205034-02	Prepared: 05/26/22	Analyzed: 05/27/22
% Solids	78.8	%	78.5
			0.369
			20

**Batch BFF0143 - General Preparation**

Duplicate (BFF0143-DUP1)	Source: 2205269-01	Prepared & Analyzed: 06/06/22
% Solids	95.7	%
		95.9
		0.212
		20

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFE0574 - General Preparation**

**Blank (BFE0574-BLK1)**

Prepared: 05/25/22 Analyzed: 05/26/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFE0574-BS1)**

Prepared: 05/25/22 Analyzed: 05/26/22

Specific Conductance (EC) 0.158 0.0100 mmhos/cm 0.150 105 95-105

**Duplicate (BFE0574-DUP1)**

Source: 2205302-01

Prepared: 05/25/22 Analyzed: 05/26/22

Specific Conductance (EC) 0.573 0.0100 mmhos/cm 0.590 2.82 20

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

**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 BFE0573 - General Preparation**

<b>LCS (BFE0573-BS1)</b>		Prepared: 05/25/22 Analyzed: 05/26/22								
pH	9.01		pH Units	9.18		98.1		95-105		
<b>Duplicate (BFE0573-DUP1)</b>		<b>Source: 2205302-01</b>		Prepared: 05/25/22 Analyzed: 05/26/22						
pH	8.00		pH Units			8.03			0.374	20

**Batch BFF0206 - General Preparation**

<b>LCS (BFF0206-BS1)</b>		Prepared: 06/08/22 Analyzed: 06/09/22								
pH	9.03		pH Units	9.18		98.4		95-105		
<b>Duplicate (BFF0206-DUP1)</b>		<b>Source: 2205269-04</b>		Prepared: 06/08/22 Analyzed: 06/09/22						
pH	8.34		pH Units			8.34			0.00	20

Summit Scientific

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

Project: Noble - Lilli Unit C-9

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
08/25/22 08:05

### Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- I-02 This sample was analyzed outside of the recommended holding time.
- 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