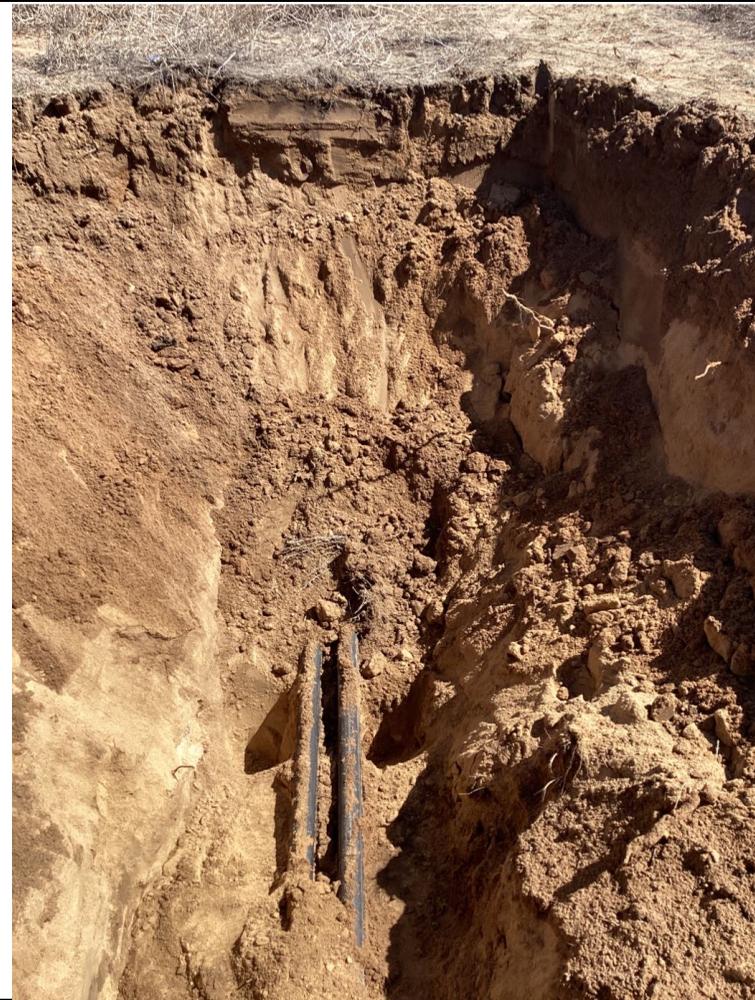


## Flowline Closure Checklist

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

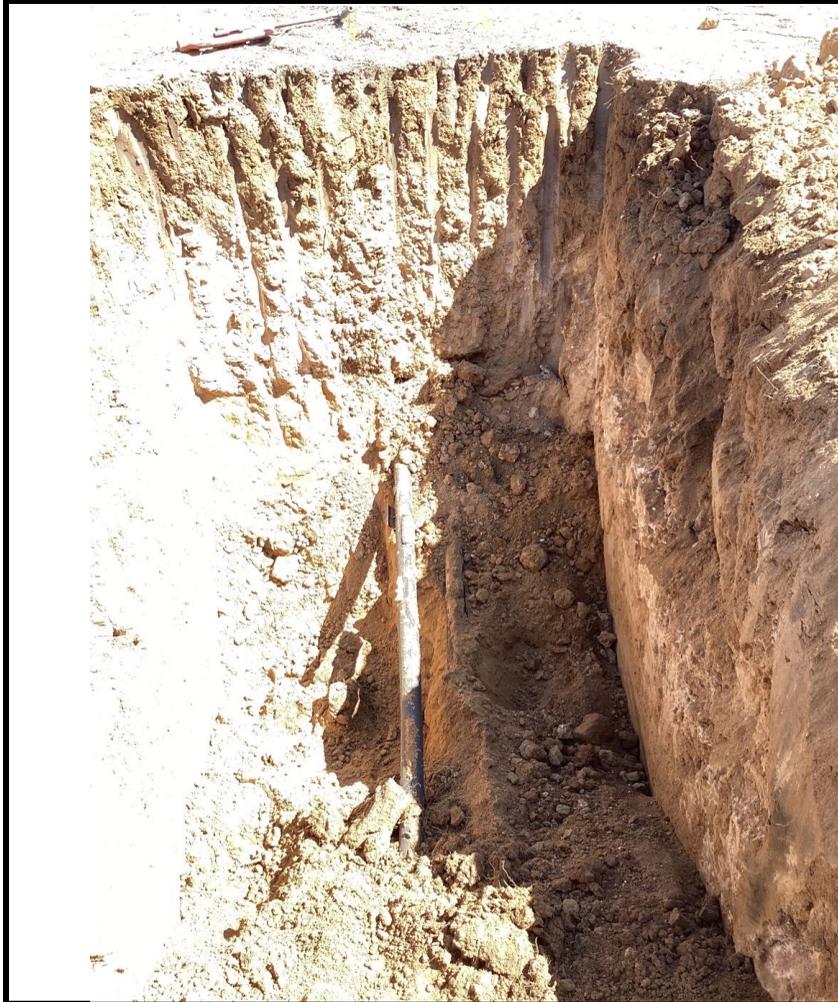
Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
Site Name & COGCC Facility Number: Hoff PC D06-28D		Date: 03/30/2023			Remediation Project #: 26911			
Associated Wells:		Age of Site:			Number of Photos Attached: 4			
Starting point: (GPS coordinates and descriptions) 40.260997, -104.598261								
End point: (GPS coordinates and descriptions) 40.261247, -104.596853								
USCS Soil Type: Well Graded Sand - SW					Estimated Depth to Groundwater: >5'			
Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  None observed								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)  None observed								
Flowlines								
Flowline type	Oil/Water/Gas							
Depth	5'							
Age								
Length	414'							
Construction Material	Steel							
Were flowlines pulled?	Yes							
Visual Integrity of lines	NA							
Visual impacts if trenched	NA							
PID Readings if trenched	NA							
Sample taken? Location/Sample ID#	Yes, see below							
Photo Number(s)	1 - 4							
Other observations regarding on location flowlines: None								
Summary								
Was impacted soil identified? <span style="background-color: yellow;">No</span> Yes - less than 10 cubic yards      Yes - more than 10 cubic yards								
Total number of samples field screened: 4					Total number of samples collected: 2			
Highest PID Reading: 2.7					Total number of samples submitted to lab for analysis: 2			
If more than 10 cubic yards of impacted soil were observed:								
Vertical extent:					Estimated spill volume:			
Lateral extent:					Volume of soil removed:			
Is additional investigation required?								
Was groundwater encountered during the investigation? <span style="background-color: yellow;">No</span> 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**



<b>Equipment ID:</b> FL01-B@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-C@4'		<b>Equipment Type:</b> Flowline	
<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> FL01-D@4'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b>			

<b>Equipment ID:</b> FL01-A@5'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b>			

**TABLE 1**  
**SOIL SAMPLE LOCATIONS**  
**NOBLE ENERGY, INC. - HOFF PC D06-28D**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude <sup>1</sup>	Longitude	PDOP
FL01-A@5'	03/30/23	2.7	No Staining	No Odor	Lab	40.261002	-104.598261	1.1
FL01-B@4'	03/30/23	2.3	No Staining	No Odor	Lab	40.261249	-104.596872	1.1
FL01-C@4'	03/30/23	1.4	No Staining	No Odor	Grab	40.261224	-104.597193	1.0
FL01-D@4'	03/30/23	0.8	No Staining	No Odor	Grab	40.261094	-104.597744	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. - HOFF PC D06-28D**

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)
<b>Residential SSL<sup>2</sup></b>		<b>1.2</b>	<b>490</b>	<b>5.8</b>	<b>58</b>	<b>30</b>	<b>27</b>	<b>2</b>	<b>500</b>			<b>360</b>	<b>1,800</b>	<b>1.1</b>	<b>0.11</b>	<b>1.1</b>	<b>11</b>	<b>110</b>	<b>0.11</b>	<b>240</b>	<b>240</b>	<b>1.1</b>	<b>180</b>	<b>18</b>	<b>24</b>
<b>Protection of Groundwater SSL<sup>2,3</sup></b>		<b>0.0026</b>	<b>0.69</b>	<b>0.78</b>	<b>9.9</b>	<b>0.0081</b>	<b>0.0087</b>	<b>0.0038</b>	<b>500</b>			<b>0.55</b>	<b>6</b>	<b>0.011</b>	<b>0.24</b>	<b>0.3</b>	<b>2.9</b>	<b>9</b>	<b>0.096</b>	<b>8.9</b>	<b>0.54</b>	<b>0.98</b>	<b>1.3</b>	<b>0.006</b>	<b>0.019</b>
FL01-A@5'	03/30/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-B@4'	03/30/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
<b>Residential SSL<sup>2</sup></b>		<b>6 - 8.3</b>	<b>&lt;6</b>	<b>&lt;4mmhos/cm</b>	<b>2</b>
FL01-A@5'	03/30/23	8.08	0.634	0.424	0.179
FL01-B@4'	03/30/23	7.83	0.0291	0.210	0.0644

Notes:

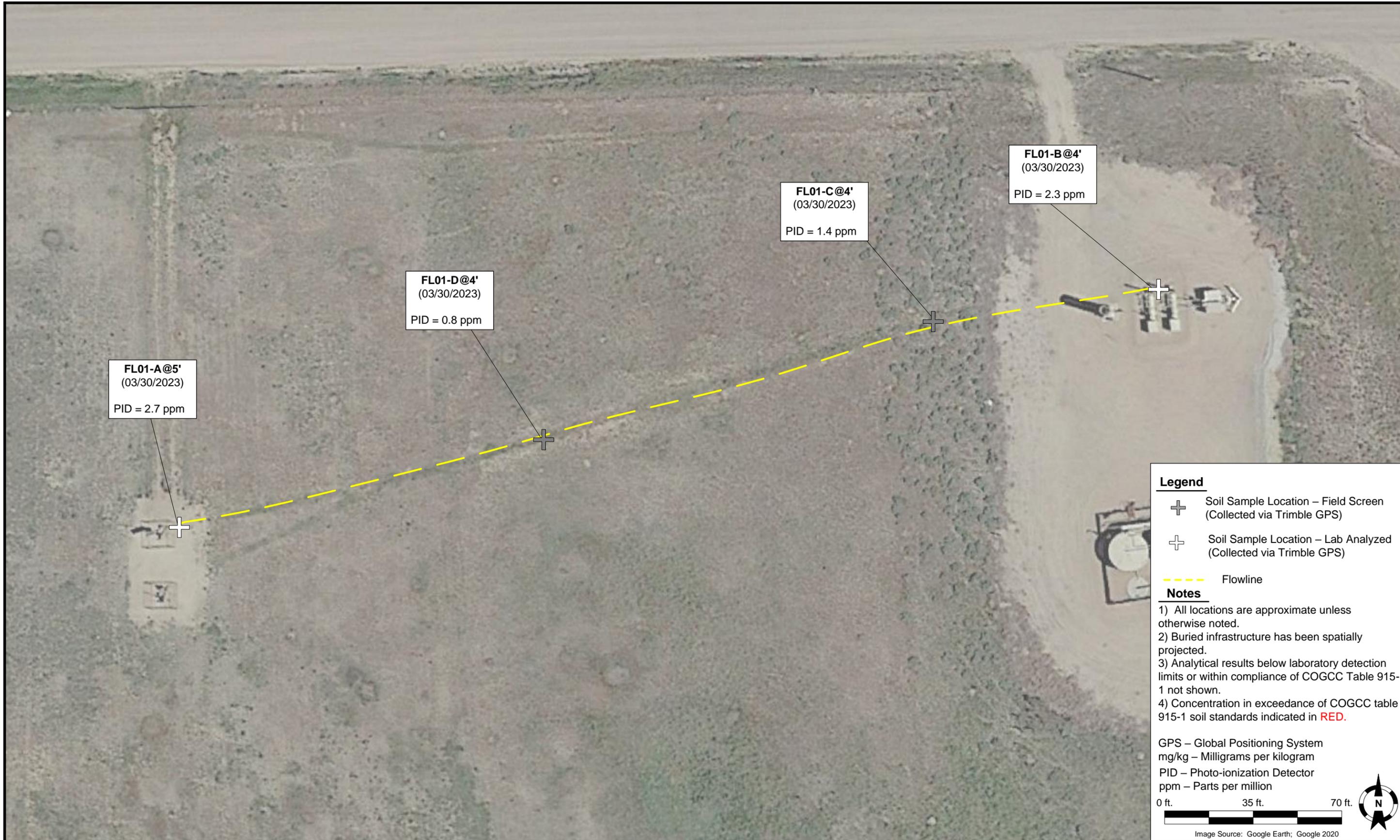
1. Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with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

Definitions:

COGCC = Colorado Oil and Gas Conservation Commission  
 TPH-GRO = Total petroleum hydrocarbons - gasoline range organics  
 TPH-DRO = Total petroleum hydrocarbons - diesel range organics  
 TPH-ORO = Total petroleum hydrocarbons - oil range organics  
 mg/kg = Milligrams per kilogram  
 SAR = Sodium Adsorption Ratio  
 EC = Electrical Conductivity  
 mmhos/cm = 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) = Benzo(a)fluoranthene  
 Benzo(k) = Benzo(a)fluoranthene  
 Benzo(a) = Benzopyrene  
 A,H = Dibenzoanthracene  
 1,2,3-CD = Indenopyrene  
 1-M = 1-methylnaphthalene  
 2-M = 2-methylnaphthalene

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



**Legend**

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

**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  
 PID – Photo-ionization Detector  
 ppm – Parts per million

0 ft. 35 ft. 70 ft.

Image Source: Google Earth; Google 2020

DATE:	05/11/2023
DESIGNED BY:	JW
DRAWN BY:	DG

**TASMAN**  
GEOSCIENCES

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

**Noble Energy, Inc. – DJ Basin**  
**Hoff PC D06-28D**  
 NENW, Section 6, Township 3 North, Range 64 West  
 Weld County, Colorado

Flowline Closure & Soil  
 Analytical Results Map  
 (03/30/2023)

**FIGURE**  
1

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 06, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Hoff PC D06-28D

Work Order #2303728

Enclosed are the results of analyses for samples received by Summit Scientific on 03/30/23 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury

President



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-B@4'	2303728-01	Soil	03/30/23 12:06	03/30/23 17:30
FL01-A@5'	2303728-02	Soil	03/30/23 13:01	03/30/23 17:30

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.*

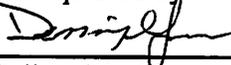
# SUMMIT SCIENTIFIC

4653 Table Mountain Drive  
Golden, CO 80403  
303-277-9310

Lab ID	Page 1 of 1
2303728	

<b>Send Data To:</b>		<b>Send Invoice To:</b>
Client: Noble/Tasman	Project Manager: Jake Whritenour	Company: Chevron
Address: 6855 W. 119th Ave.	E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location: Hoff PC D06-28D
City/State/Zip: Broomfield/CO/ 80020		AFE#:
Phone: 602-881-5716	Project Name: Hoff PC D06-28D	PO/Billing Codes:
Sampler Name: Dennis Gray	Project Number:	Contact: Cole Moore

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS		HOLD
1	FL01-B@4'	3-30-23	1206	2			X			X				X	X	X	X	X		SAR, EC, pH by saturated paste
2	FL01-A@5'	3-30-23	1301	2			X			X				X	X	X	X	X		
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: 	Date/Time: 3-30-23 1615	Received by: Tasman Lock Box	Date/Time: 3-30-23 1615	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lock Box	Date/Time: 3-30-23 1730	Received by: 	Date/Time: 3-30-23 1730	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 9.7	Corrected Temperature: 9	IR gun #: 7	HNO3 lot #:			

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2303728

Client: Noble/Traman Client Project ID: Hoff PC D06-28D

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> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>NIJCE</i>
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

AS  
Custodian Printed Name

3/30/23  
Date/Time



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**FL01-B@4'**  
**2303728-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGC1047	03/31/23	03/31/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0466	117 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0336	84.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0347	86.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGC1050	03/31/23	04/01/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.02	72.1 %	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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**FL01-B@4'**  
**2303728-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0025	04/03/23	04/03/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0216	64.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0225	67.6 %	40-150		"	"	"	"	

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

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0644</b>	0.0100	mg/L	1	BGC1041	03/31/23	04/02/23	EPA 6020B	

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

Date Sampled: **03/30/23 12:06**

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

Summit Scientific

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



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**FL01-B@4'**  
**2303728-01 (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	29.6	0.0535	mg/L dry	1	BGD0054	04/03/23	04/05/23	EPA 6020B	
Magnesium	6.32	0.0535	"	"	"	"	"	"	
Sodium	0.668	0.0535	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0291	0.00100	units	1	BGD0122	04/05/23	04/05/23	Calculation	

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

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.5		%	1	BGD0052	04/03/23	04/04/23	Calculation	

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

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.210	0.0100	mmhos/cm	1	BGD0096	04/04/23	04/04/23	EPA 120.1	

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

Date Sampled: **03/30/23 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.83		pH Units	1	BGD0094	04/04/23	04/04/23	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**FL01-A@5'**  
**2303728-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGC1047	03/31/23	03/31/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0476	119 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0334	83.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0351	87.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGC1050	03/31/23	04/01/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.90	63.2 %	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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**FL01-A@5'**  
**2303728-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGD0025	04/03/23	04/03/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0169	50.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0189	56.8 %	40-150		"	"	"	"	

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

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.179</b>	0.0100	mg/L	1	BGC1041	03/31/23	04/02/23	EPA 6020B	

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

Date Sampled: **03/30/23 13:01**

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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**FL01-A@5'**  
**2303728-02 (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	16.3	0.0575	mg/L dry	1	BGD0054	04/03/23	04/05/23	EPA 6020B	
Magnesium	24.0	0.0575	"	"	"	"	"	"	
Sodium	17.2	0.0575	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.634	0.00100	units	1	BGD0122	04/05/23	04/05/23	Calculation	

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

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.9		%	1	BGD0052	04/03/23	04/04/23	Calculation	

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

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.424	0.0100	mmhos/cm	1	BGD0096	04/04/23	04/04/23	EPA 120.1	

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

Date Sampled: **03/30/23 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.08		pH Units	1	BGD0094	04/04/23	04/04/23	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

### 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 BGC1047 - EPA 5030 Soil MS

##### Blank (BGC1047-BLK1)

Prepared & Analyzed: 03/31/23

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
Naphthalene	ND	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0460		"	0.0400		115	50-150				
<i>Surrogate: Toluene-d8</i>	0.0328		"	0.0400		82.0	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0340		"	0.0400		84.9	50-150				

##### LCS (BGC1047-BS1)

Prepared & Analyzed: 03/31/23

Benzene	0.0957	0.0020	mg/kg	0.125		76.6	70-130				
Toluene	0.106	0.0050	"	0.125		84.4	70-130				
Ethylbenzene	0.155	0.0050	"	0.125		124	70-130				
m,p-Xylene	0.310	0.010	"	0.250		124	70-130				
o-Xylene	0.141	0.0050	"	0.125		113	70-130				
1,2,4-Trimethylbenzene	0.151	0.0050	"	0.125		121	70-130				
1,3,5-Trimethylbenzene	0.156	0.0050	"	0.125		125	70-130				
Naphthalene	0.152	0.0038	"	0.125		122	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0471		"	0.0400		118	50-150				
<i>Surrogate: Toluene-d8</i>	0.0344		"	0.0400		86.0	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0340		"	0.0400		85.0	50-150				

##### Matrix Spike (BGC1047-MS1)

Source: 2303728-01

Prepared & Analyzed: 03/31/23

Benzene	0.0936	0.0020	mg/kg	0.125	ND	74.9	70-130				
Toluene	0.104	0.0050	"	0.125	ND	83.3	70-130				
Ethylbenzene	0.151	0.0050	"	0.125	ND	121	70-130				
m,p-Xylene	0.301	0.010	"	0.250	ND	120	70-130				
o-Xylene	0.139	0.0050	"	0.125	ND	111	70-130				
1,2,4-Trimethylbenzene	0.150	0.0050	"	0.125	ND	120	70-130				
1,3,5-Trimethylbenzene	0.152	0.0050	"	0.125	ND	122	70-130				
Naphthalene	0.145	0.0038	"	0.125	ND	116	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0469		"	0.0400		117	50-150				
<i>Surrogate: Toluene-d8</i>	0.0346		"	0.0400		86.5	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0340		"	0.0400		85.1	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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGC1047 - EPA 5030 Soil MS**

Matrix Spike Dup (BGC1047-MSD1)	Source: 2303728-01			Prepared & Analyzed: 03/31/23						
Benzene	0.0954	0.0020	mg/kg	0.125	ND	76.3	70-130	1.94	30	
Toluene	0.106	0.0050	"	0.125	ND	84.6	70-130	1.52	30	
Ethylbenzene	0.156	0.0050	"	0.125	ND	125	70-130	3.32	30	
m,p-Xylene	0.312	0.010	"	0.250	ND	125	70-130	3.71	30	
o-Xylene	0.141	0.0050	"	0.125	ND	113	70-130	1.50	30	
1,2,4-Trimethylbenzene	0.153	0.0050	"	0.125	ND	122	70-130	1.94	30	
1,3,5-Trimethylbenzene	0.156	0.0050	"	0.125	ND	125	70-130	2.55	30	
Naphthalene	0.146	0.0038	"	0.125	ND	117	70-130	1.20	30	
Surrogate: 1,2-Dichloroethane-d4	0.0470		"	0.0400		118	50-150			
Surrogate: Toluene-d8	0.0342		"	0.0400		85.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0337		"	0.0400		84.2	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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

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

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

**Batch BGC1050 - EPA 3550A**

**Blank (BGC1050-BLK1)**

Prepared: 03/31/23 Analyzed: 04/01/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	11.9		"	12.5		95.4	30-150			

**LCS (BGC1050-BS1)**

Prepared: 03/31/23 Analyzed: 04/01/23

C10-C28 (DRO)	375	50	mg/kg	500		75.1	70-130			
Surrogate: <i>o</i> -Terphenyl	10.7		"	12.5		85.8	30-150			

**Matrix Spike (BGC1050-MS1)**

Source: 2303728-01

Prepared: 03/31/23 Analyzed: 04/01/23

C10-C28 (DRO)	365	50	mg/kg	500	13.9	70.2	70-130			
Surrogate: <i>o</i> -Terphenyl	9.61		"	12.5		76.9	30-150			

**Matrix Spike Dup (BGC1050-MSD1)**

Source: 2303728-01

Prepared: 03/31/23 Analyzed: 04/01/23

C10-C28 (DRO)	364	50	mg/kg	500	13.9	70.1	70-130	0.165	20	
Surrogate: <i>o</i> -Terphenyl	10.0		"	12.5		80.1	30-150			

Summit Scientific

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



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGD0025 - EPA 5030 Soil MS**

**Blank (BGD0025-BLK1)**

Prepared & Analyzed: 04/03/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0277		"	0.0333		83.0	40-150			
Surrogate: Fluoranthene-d10	0.0277		"	0.0333		83.1	40-150			

**LCS (BGD0025-BS1)**

Prepared & Analyzed: 04/03/23

Acenaphthene	0.0243	0.00500	mg/kg	0.0333		72.8	31-137			
Anthracene	0.0221	0.00500	"	0.0333		66.3	30-120			
Benzo (a) anthracene	0.0232	0.00500	"	0.0333		69.6	30-120			
Benzo (a) pyrene	0.0232	0.00500	"	0.0333		69.7	30-120			
Benzo (b) fluoranthene	0.0234	0.00500	"	0.0333		70.2	30-120			
Benzo (k) fluoranthene	0.0241	0.00500	"	0.0333		72.3	30-120			
Chrysene	0.0217	0.00500	"	0.0333		65.2	30-120			
Dibenz (a,h) anthracene	0.0257	0.00500	"	0.0333		77.1	30-120			
Fluoranthene	0.0244	0.00500	"	0.0333		73.1	30-120			
Fluorene	0.0244	0.00500	"	0.0333		73.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0224	0.00500	"	0.0333		67.3	30-120			
Pyrene	0.0247	0.00500	"	0.0333		74.1	35-142			
1-Methylnaphthalene	0.0229	0.00500	"	0.0333		68.8	35-142			
2-Methylnaphthalene	0.0240	0.00500	"	0.0333		72.1	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0230		"	0.0333		68.9	40-150			
Surrogate: Fluoranthene-d10	0.0264		"	0.0333		79.1	40-150			

Summit Scientific

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



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

Project: Noble - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGD0025 - EPA 5030 Soil MS**

<b>Matrix Spike (BGD0025-MS1)</b>	<b>Source: 2303576-01</b>			<b>Prepared &amp; Analyzed: 04/03/23</b>						
Acenaphthene	0.0194	0.00500	mg/kg	0.0333	ND	58.2	31-137			
Anthracene	0.0182	0.00500	"	0.0333	0.00225	47.8	30-120			
Benzo (a) anthracene	0.0232	0.00500	"	0.0333	ND	69.7	30-120			
Benzo (a) pyrene	0.0184	0.00500	"	0.0333	ND	55.3	30-120			
Benzo (b) fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	30-120			
Benzo (k) fluoranthene	0.0165	0.00500	"	0.0333	ND	49.4	30-120			
Chrysene	0.0160	0.00500	"	0.0333	ND	48.1	30-120			
Dibenz (a,h) anthracene	0.0226	0.00500	"	0.0333	ND	67.7	30-120			
Fluoranthene	0.0204	0.00500	"	0.0333	ND	61.2	30-120			
Fluorene	0.0196	0.00500	"	0.0333	ND	58.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0184	0.00500	"	0.0333	ND	55.2	30-120			
Pyrene	0.0192	0.00500	"	0.0333	ND	57.5	35-142			
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	0.00188	44.3	15-130			
2-Methylnaphthalene	0.0181	0.00500	"	0.0333	0.00383	42.7	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0172</i>		<i>"</i>	<i>0.0333</i>		<i>51.6</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0236</i>		<i>"</i>	<i>0.0333</i>		<i>70.9</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BGD0025-MSD1)</b>	<b>Source: 2303576-01</b>			<b>Prepared &amp; Analyzed: 04/03/23</b>						
Acenaphthene	0.0227	0.00500	mg/kg	0.0333	ND	68.2	31-137	16.0	30	
Anthracene	0.0217	0.00500	"	0.0333	0.00225	58.3	30-120	17.5	30	
Benzo (a) anthracene	0.0274	0.00500	"	0.0333	ND	82.1	30-120	16.4	30	
Benzo (a) pyrene	0.0232	0.00500	"	0.0333	ND	69.5	30-120	22.8	30	
Benzo (b) fluoranthene	0.0212	0.00500	"	0.0333	ND	63.7	30-120	20.6	30	
Benzo (k) fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	16.8	30	
Chrysene	0.0185	0.00500	"	0.0333	ND	55.6	30-120	14.5	30	
Dibenz (a,h) anthracene	0.0217	0.00500	"	0.0333	ND	65.1	30-120	3.88	30	
Fluoranthene	0.0231	0.00500	"	0.0333	ND	69.4	30-120	12.4	30	
Fluorene	0.0232	0.00500	"	0.0333	ND	69.6	30-120	17.0	30	
Indeno (1,2,3-cd) pyrene	0.0226	0.00500	"	0.0333	ND	67.8	30-120	20.4	30	
Pyrene	0.0224	0.00500	"	0.0333	ND	67.1	35-142	15.4	30	
1-Methylnaphthalene	0.0213	0.00500	"	0.0333	0.00188	58.3	15-130	24.7	50	
2-Methylnaphthalene	0.0194	0.00500	"	0.0333	0.00383	46.8	15-130	7.24	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0218</i>		<i>"</i>	<i>0.0333</i>		<i>65.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0260</i>		<i>"</i>	<i>0.0333</i>		<i>77.9</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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGC1041 - EPA 3050B**

**Blank (BGC1041-BLK1)**

Prepared: 03/31/23 Analyzed: 04/02/23

Boron ND 0.0100 mg/L

**LCS (BGC1041-BS1)**

Prepared: 03/31/23 Analyzed: 04/02/23

Boron 5.95 0.0100 mg/L 5.00 119 80-120

**Duplicate (BGC1041-DUP1)**

**Source: 2303695-01**

Prepared: 03/31/23 Analyzed: 04/02/23

Boron 0.337 0.0100 mg/L 0.342 1.21 20

**Matrix Spike (BGC1041-MS1)**

**Source: 2303695-01**

Prepared: 03/31/23 Analyzed: 04/02/23

Boron 5.92 0.0100 mg/L 5.00 0.342 112 75-125

**Matrix Spike Dup (BGC1041-MSD1)**

**Source: 2303695-01**

Prepared: 03/31/23 Analyzed: 04/02/23

Boron 5.95 0.0100 mg/L 5.00 0.342 112 75-125 0.531 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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGD0054 - General Preparation**

**Blank (BGD0054-BLK1)**

Prepared: 04/03/23 Analyzed: 04/04/23

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

**LCS (BGD0054-BS1)**

Prepared: 04/03/23 Analyzed: 04/04/23

Calcium	4.07	0.0500	mg/L wet	5.00	81.3	70-130				
Magnesium	4.31	0.0500	"	5.00	86.2	70-130				
Sodium	4.31	0.0500	"	5.00	86.3	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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

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

**Summit Scientific**

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

**Batch BGD0052 - General Preparation**

<b>Duplicate (BGD0052-DUP1)</b>		<b>Source: 2303576-01</b>		Prepared: 04/03/23 Analyzed: 04/04/23	
% Solids	93.4	%		85.6	8.66 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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGD0096 - General Preparation**

**Blank (BGD0096-BLK1)**

Prepared & Analyzed: 04/04/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGD0096-BS1)**

Prepared & Analyzed: 04/04/23

Specific Conductance (EC) 0.151 0.0100 mmhos/cm 0.150 101 95-105

**Duplicate (BGD0096-DUP1)**

Source: 2303727-01

Prepared & Analyzed: 04/04/23

Specific Conductance (EC) 0.266 0.0100 mmhos/cm 0.271 1.94 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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

**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 BGD0094 - General Preparation**

**LCS (BGD0094-BS1)**

Prepared & Analyzed: 04/04/23

pH	8.98	pH Units	9.18	97.8	95-105
----	------	----------	------	------	--------

**Duplicate (BGD0094-DUP1)**

Source: 2303726-01

Prepared & Analyzed: 04/04/23

pH	8.06	pH Units	8.05	0.124	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 - Hoff PC D06-28D

Project Number: [none]  
Project Manager: Jacob Whritenour

**Reported:**  
04/06/23 10:41

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference