

**TABLE 1**  
**SOIL SAMPLE LOCATIONS**  
**NOBLE ENERGY, INC. - HANSCOME C02 FL**

Soil Sample ID	Date	PID (ppm)	Visual	Olfactory	Sample Type (Grab/Lab)	Latitude <sup>1</sup>	Longitude	PDOP
FL01-A@4'	03/15/23	0.0	No Staining	No Odor	Lab	40.28527288	-104.5630301	0.9
FL01-B@5'	03/15/23	0.0	No Staining	No Odor	Lab	40.28517195	-104.5650454	0.8
FL01-C@4'	03/15/23	0.0	No Staining	No Odor	Grab	40.28525740	-104.5637297	0.9
FL01-D@4'	03/15/23	0.0	No Staining	No Odor	Grab	40.28515948	-104.5644206	0.9
FL01-E@4'	03/15/23	0.0	No Staining	No Odor	Grab	40.28512103	-104.5646518	0.9
FL01-F@4'	03/15/23	0.0	No Staining	No Odor	Lab	40.28508140	-104.5648238	0.9

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. - HANSCOME C02 FL

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
FL01-A@4'	03/15/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	0.0190	0.0284	0.0331	0.0154	0.0276	0.0106	0.0280	<0.00500	0.0860	0.0213	0.0108	0.0621	<0.00500	<0.00500
FL01-B@5'	03/15/23	<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-F@4'	03/15/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	0.755	1.29	1.59	0.830	1.49	0.523	1.29	<0.00500	3.87	0.958	0.499	2.77	0.0531	0.0472

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL <sup>2</sup>		6 - 8.3	<6	<4mmhos/cm	2
FL01-A@4'	03/15/23	7.43	1.89	0.485	0.165
FL01-B@5'	03/15/23	7.84	0.348	0.301	0.218
FL01-F@4'	03/15/23	6.84	0.891	0.964	0.0885

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 = Millmhos per centimeter

mg/L = Milligrams per liter

< = Analytical result is less than the indicated laboratory reporting limit

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

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benz(a) = 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

**Photographic Log**



<b>Equipment ID:</b> FL01-A@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-B@5'		<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**

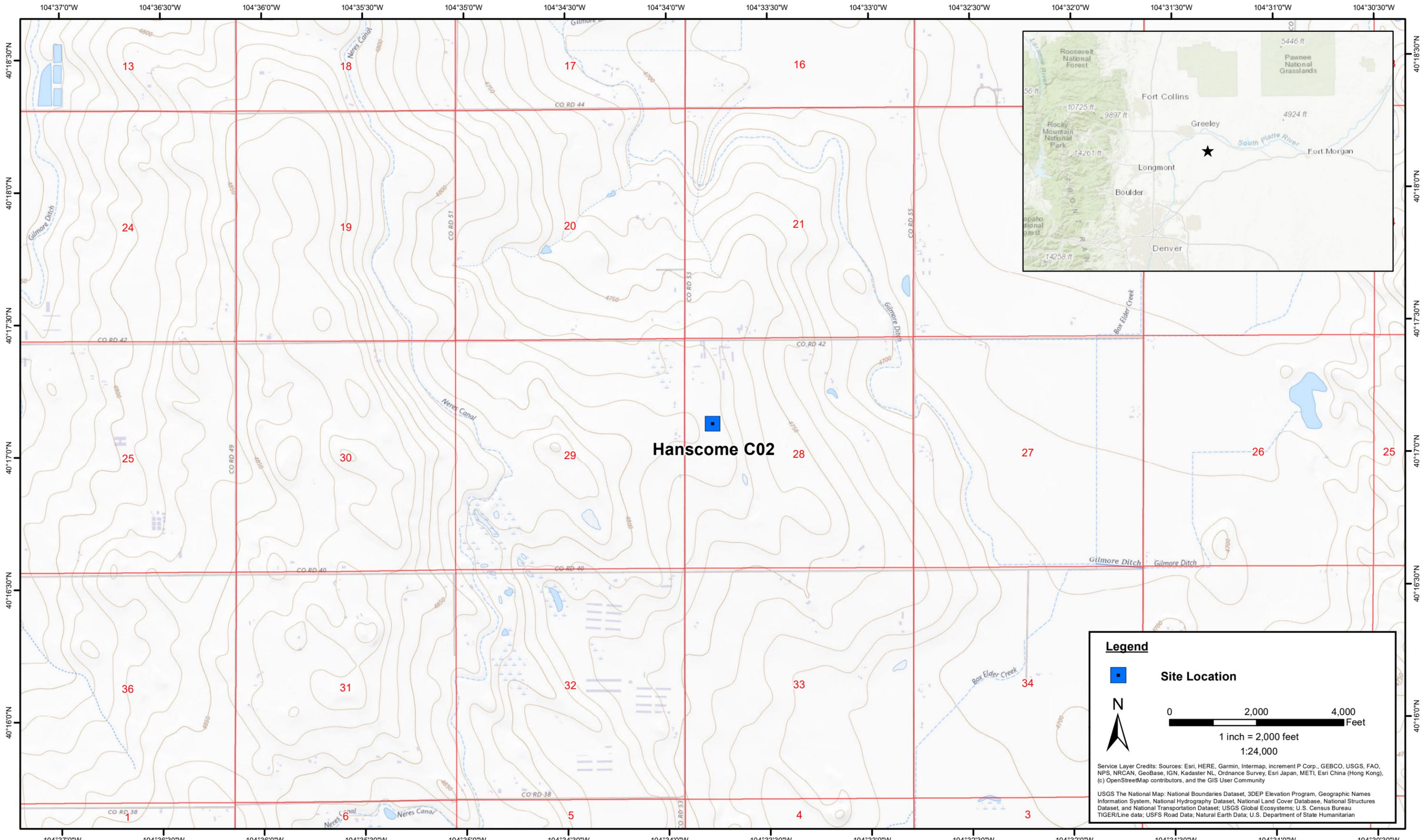


<b>Equipment ID:</b> FL01-C@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-D@4'		<b>Equipment Type:</b> Flowline	
<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water		<b>Material:</b> Steel	<b>Volume:</b>	<b>Contents:</b> Oil/Gas/Water	
<b>Notes/Conditions:</b>				<b>Notes/Conditions: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

**Photographic Log**



<b>Equipment ID:</b> FL01-E@4'		<b>Equipment Type:</b> Flowline		<b>Equipment ID:</b> FL01-F@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>			



DATE:	March 2023
DESIGNED BY:	J. Whritenour
DRAWN BY:	L. Reed

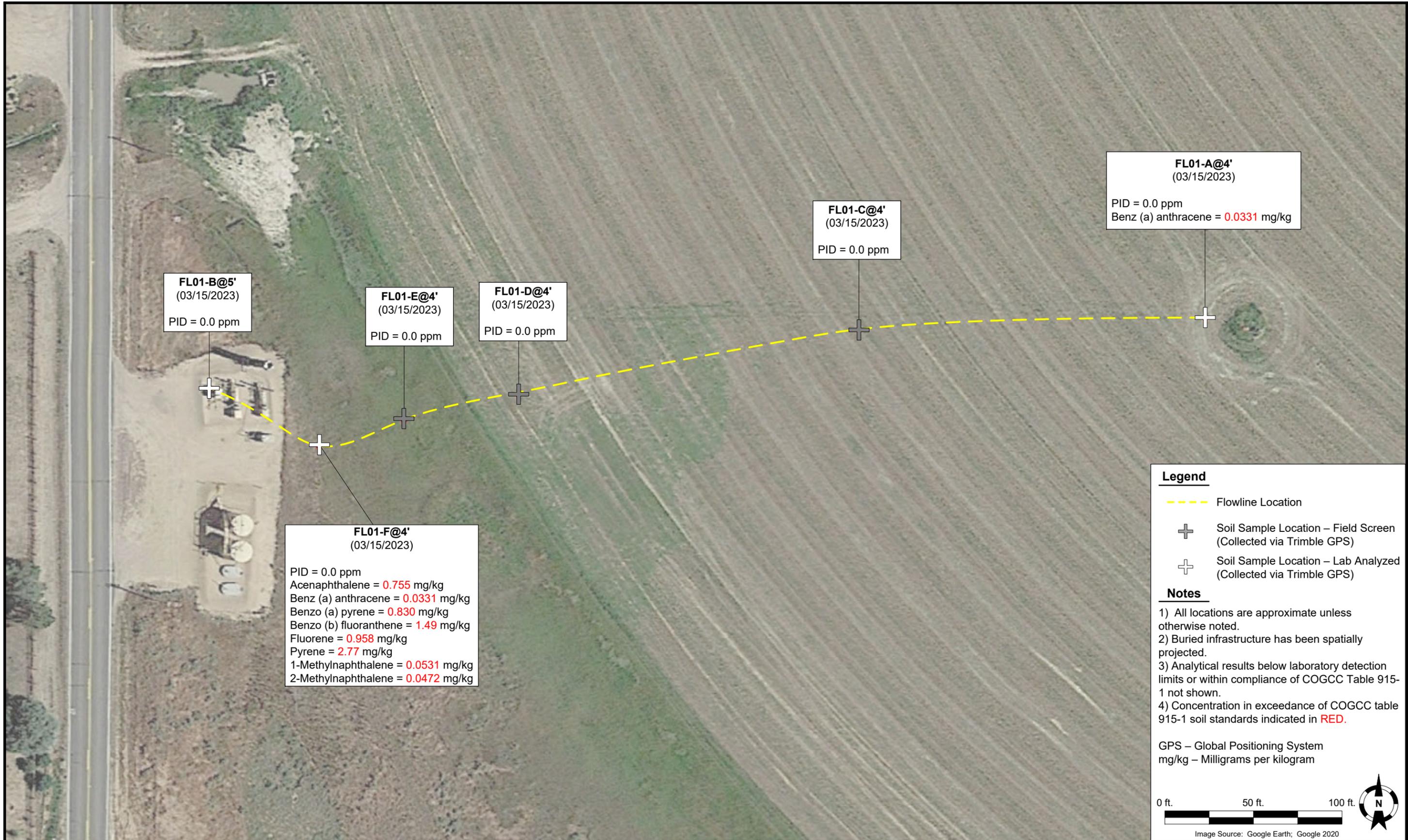


**Tasman, Inc.**  
 6855 W. 119th Ave  
 Broomfield, CO 80020

**Noble Energy, Inc - DJ Basin**  
**Hanscome C02**  
 SWNW Sec. 28-T4N-R64W  
 Weld County, Colorado

Site Location Map

Figure  
1



DATE: 03/24/2023

DESIGNED BY: JW

DRAWN BY: HM



**Noble Energy, Inc. – DJ Basin  
Hanscome C02 FL**  
SWNW, Section 28, Township 4 North, Range 64 West  
Weld County, Colorado

Flowline Closure & Soil  
Analytical Results Map  
(03/15/2023)

FIGURE  
2

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 24, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Hanscome C02

Work Order #2303414

Enclosed are the results of analyses for samples received by Summit Scientific on 03/15/23 18:18. 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 - Hanscome C02

Project Number: UWRWE-A2384-ABN

Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**ANALYTICAL REPORT FOR SAMPLES**

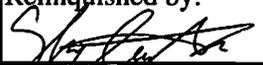
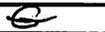
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01-A@4'	2303414-01	Soil	03/15/23 13:43	03/15/23 18:18
FL01-B@5'	2303414-02	Soil	03/15/23 14:25	03/15/23 18:18
FL01-F@4'	2303414-03	Soil	03/15/23 14:08	03/15/23 18:18

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.*

Client: Noble / Tasman		Send Data To: Project Manager: Jake Whritenour		Send Invoice To: Company: Chevron	
Address: 6855 W. 119th Ave		E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location: Hanscome CO2	
City/State/Zip: Broomfield, CO 80020				AFE#:	
Phone: 303-261-6246		Project Name: Hanscome CO2		PO/Billing Codes:	
Sampler Name: Stanley Gilbert		Project Number: UWRWE-A2384-ABN		Contact: Jacob Bulla	

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	Metals - 915
1	FLO1-A@4'	3/15/23	13:43	2			X			X			X	X	X	X	X		pH, EC, SAR by saturated paste
2	FLO1-B@5'		14:25	1															
3	FLO1-F@4'		14:08	1															
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: 	Date/Time: 3/15/23 16:27	Received by: Tasman Lock Box	Date/Time: 3/15/23 16:27	TAT Business Days	Field DO	Notes:
Relinquished by: Tasman Lock Box	Date/Time: 3/15/23 18:18	Received by: 	Date/Time: 3/15/23 18:18	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 12.1	Corrected Temperature: 	IR gun #: /	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2303414

Client: Noble Frisman Client Project ID: Hanscome Co2

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

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

Temp (°C) 12.1 Thermometer # 1

	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"/>	<u>on ICE</u>
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.

[Signature]  
Custodian Printed Name

3-15-23  
Date/Time



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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-A@4'**  
**2303414-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGC0570	03/18/23	03/20/23	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: **03/15/23 13:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0478	120 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0425	106 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGC0573	03/18/23	03/22/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.4	91.3 %		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 - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-A@4'**  
**2303414-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0190	0.00500	mg/kg	1	BGC0771	03/23/23	03/23/23	EPA 8270D SIM	
Anthracene	0.0284	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0331	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0154	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0276	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0106	0.00500	"	"	"	"	"	"	
Chrysene	0.0280	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0860	0.00500	"	"	"	"	"	"	
Fluorene	0.0213	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0108	0.00500	"	"	"	"	"	"	
Pyrene	0.0621	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0231	69.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0202	60.6 %	40-150		"	"	"	"	

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

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.165	0.0100	mg/L	1	BGC0653	03/20/23	03/22/23	EPA 6020B	

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

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	25.8	0.0530	mg/L dry	1	BGC0700	03/21/23	03/22/23	EPA 6020B	

Summit Scientific

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-A@4'**  
**2303414-01 (Soil)**

**Summit Scientific**

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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	11.7	0.0530	mg/L dry	1	BGC0700	03/21/23	03/22/23	EPA 6020B	
Sodium	46.1	0.0530	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.89	0.00100	units	1	BGC0784	03/23/23	03/23/23	Calculation	

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

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.3		%	1	BGC0684	03/21/23	03/21/23	Calculation	

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

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.485	0.0100	mmhos/cm	1	BGC0729	03/22/23	03/22/23	EPA 120.1	

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

Date Sampled: **03/15/23 13:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.43		pH Units	1	BGC0728	03/22/23	03/22/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-B@5'**  
**2303414-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGC0570	03/18/23	03/20/23	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: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0466	117 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGC0573	03/18/23	03/22/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.3	106 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-B@5'**  
**2303414-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGC0771	03/23/23	03/23/23	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: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0226	67.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0223	67.0 %	40-150		"	"	"	"	

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

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.218</b>	0.0100	mg/L	1	BGC0653	03/20/23	03/22/23	EPA 6020B	

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

Date Sampled: **03/15/23 14:25**

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 - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-B@5'**  
**2303414-02 (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	30.3	0.0586	mg/L dry	1	BGC0700	03/21/23	03/22/23	EPA 6020B	
Magnesium	7.80	0.0586	"	"	"	"	"	"	
Sodium	8.30	0.0586	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.348	0.00100	units	1	BGC0784	03/23/23	03/23/23	Calculation	

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

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.3		%	1	BGC0684	03/21/23	03/21/23	Calculation	

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

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.301	0.0100	mmhos/cm	1	BGC0729	03/22/23	03/22/23	EPA 120.1	

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

Date Sampled: **03/15/23 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.84		pH Units	1	BGC0728	03/22/23	03/22/23	EPA 9045D	

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-F@4'**  
**2303414-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGC0570	03/18/23	03/21/23	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: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0508	127 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0368	91.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0411	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGC0573	03/18/23	03/22/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.4	91.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-F@4'**  
**2303414-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.755	0.0500	mg/kg	10	BGC0771	03/23/23	03/24/23	EPA 8270D SIM	
Anthracene	1.29	0.0500	"	"	"	"	"	"	
Benzo (a) anthracene	1.59	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	0.830	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	1.49	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.523	0.0500	"	"	"	"	"	"	
Chrysene	1.29	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	1	"	"	03/23/23	"	
Fluoranthene	3.87	0.0500	"	10	"	"	03/24/23	"	E
Fluorene	0.958	0.0500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.499	0.0500	"	"	"	"	"	"	
Pyrene	2.77	0.0500	"	"	"	"	"	"	E
1-Methylnaphthalene	0.0531	0.00500	"	1	"	"	03/23/23	"	
2-Methylnaphthalene	0.0472	0.00500	"	"	"	"	"	"	

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0250	74.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0201	60.3 %	40-150		"	"	"	"	

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

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0885	0.0100	mg/L	1	BGC0653	03/20/23	03/22/23	EPA 6020B	

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

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	65.6	0.0538	mg/L dry	1	BGC0700	03/21/23	03/22/23	EPA 6020B	

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**FL01-F@4'**  
**2303414-03 (Soil)**

**Summit Scientific**

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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Magnesium	21.4	0.0538	mg/L dry	1	BGC0700	03/21/23	03/22/23	EPA 6020B	
Sodium	32.5	0.0538	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.891	0.00100	units	1	BGC0784	03/23/23	03/23/23	Calculation	

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

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.9		%	1	BGC0684	03/21/23	03/21/23	Calculation	

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

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.964	0.0100	mmhos/cm	1	BGC0729	03/22/23	03/22/23	EPA 120.1	

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

Date Sampled: **03/15/23 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.84		pH Units	1	BGC0728	03/22/23	03/22/23	EPA 9045D	

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

### 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 BGC0570 - EPA 5030 Soil MS

##### Blank (BGC0570-BLK1)

Prepared: 03/18/23 Analyzed: 03/20/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0482		"	0.0400		121	50-150			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.1	50-150			
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	50-150			

##### LCS (BGC0570-BS1)

Prepared: 03/18/23 Analyzed: 03/20/23

Benzene	0.0812	0.0020	mg/kg	0.100		81.2	70-130			
Toluene	0.0742	0.0050	"	0.100		74.2	70-130			
Ethylbenzene	0.0869	0.0050	"	0.100		86.9	70-130			
m,p-Xylene	0.177	0.010	"	0.200		88.4	70-130			
o-Xylene	0.0852	0.0050	"	0.100		85.2	70-130			
1,2,4-Trimethylbenzene	0.0814	0.0050	"	0.100		81.4	70-130			
1,3,5-Trimethylbenzene	0.0834	0.0050	"	0.100		83.4	70-130			
Naphthalene	0.0759	0.0038	"	0.100		75.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0430		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0414		"	0.0400		104	50-150			

##### Matrix Spike (BGC0570-MS1)

Source: 2303404-01

Prepared: 03/18/23 Analyzed: 03/20/23

Benzene	0.0825	0.0020	mg/kg	0.100	ND	82.5	70-130			
Toluene	0.0760	0.0050	"	0.100	ND	76.0	70-130			
Ethylbenzene	0.0916	0.0050	"	0.100	ND	91.6	70-130			
m,p-Xylene	0.184	0.010	"	0.200	ND	92.2	70-130			
o-Xylene	0.0868	0.0050	"	0.100	ND	86.8	70-130			
1,2,4-Trimethylbenzene	0.0837	0.0050	"	0.100	ND	83.7	70-130			
1,3,5-Trimethylbenzene	0.0870	0.0050	"	0.100	ND	87.0	70-130			
Naphthalene	0.0820	0.0038	"	0.100	ND	82.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	50-150			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0411		"	0.0400		103	50-150			

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0570 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BGC0570-MSD1)</b>	<b>Source: 2303404-01</b>			<b>Prepared: 03/18/23 Analyzed: 03/20/23</b>						
Benzene	0.0842	0.0020	mg/kg	0.100	ND	84.2	70-130	2.05	30	
Toluene	0.0762	0.0050	"	0.100	ND	76.2	70-130	0.315	30	
Ethylbenzene	0.0880	0.0050	"	0.100	ND	88.0	70-130	4.01	30	
m,p-Xylene	0.179	0.010	"	0.200	ND	89.5	70-130	2.89	30	
o-Xylene	0.0859	0.0050	"	0.100	ND	85.9	70-130	1.11	30	
1,2,4-Trimethylbenzene	0.0837	0.0050	"	0.100	ND	83.7	70-130	0.0358	30	
1,3,5-Trimethylbenzene	0.0858	0.0050	"	0.100	ND	85.8	70-130	1.39	30	
Naphthalene	0.0835	0.0038	"	0.100	ND	83.5	70-130	1.78	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0447</i>		<i>"</i>	<i>0.0400</i>		<i>112</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0390</i>		<i>"</i>	<i>0.0400</i>		<i>97.6</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0413</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0573 - EPA 3550A**

**Blank (BGC0573-BLK1)**

Prepared: 03/18/23 Analyzed: 03/22/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5		100	30-150				

**LCS (BGC0573-BS1)**

Prepared: 03/18/23 Analyzed: 03/22/23

C10-C28 (DRO)	359	50	mg/kg	500		71.8	70-130				
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5		99.7	30-150				

**Matrix Spike (BGC0573-MS1)**

Source: 2303404-01

Prepared: 03/18/23 Analyzed: 03/22/23

C10-C28 (DRO)	387	50	mg/kg	500	31.8	71.0	70-130				
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5		89.8	30-150				

**Matrix Spike Dup (BGC0573-MSD1)**

Source: 2303404-01

Prepared: 03/18/23 Analyzed: 03/22/23

C10-C28 (DRO)	388	50	mg/kg	500	31.8	71.2	70-130	0.306	20		
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		93.0	30-150				

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0771 - EPA 5030 Soil MS**

**Blank (BGC0771-BLK1)**

Prepared & Analyzed: 03/23/23

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	0.0280		"	0.0333		84.0	40-150			
Surrogate: Fluoranthene-d10	0.0285		"	0.0333		85.5	40-150			

**LCS (BGC0771-BS1)**

Prepared & Analyzed: 03/23/23

Acenaphthene	0.0311	0.00500	mg/kg	0.0333		93.2	31-137			
Anthracene	0.0293	0.00500	"	0.0333		87.8	30-120			
Benzo (a) anthracene	0.0247	0.00500	"	0.0333		74.0	30-120			
Benzo (a) pyrene	0.0317	0.00500	"	0.0333		95.2	30-120			
Benzo (b) fluoranthene	0.0301	0.00500	"	0.0333		90.4	30-120			
Benzo (k) fluoranthene	0.0362	0.00500	"	0.0333		109	30-120			
Chrysene	0.0273	0.00500	"	0.0333		81.9	30-120			
Dibenz (a,h) anthracene	0.0249	0.00500	"	0.0333		74.6	30-120			
Fluoranthene	0.0293	0.00500	"	0.0333		87.9	30-120			
Fluorene	0.0318	0.00500	"	0.0333		95.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0275	0.00500	"	0.0333		82.4	30-120			
Pyrene	0.0327	0.00500	"	0.0333		98.1	35-142			
1-Methylnaphthalene	0.0334	0.00500	"	0.0333		100	35-142			
2-Methylnaphthalene	0.0206	0.00500	"	0.0333		61.7	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0399		"	0.0333		120	40-150			
Surrogate: Fluoranthene-d10	0.0308		"	0.0333		92.3	40-150			

Summit Scientific

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0771 - EPA 5030 Soil MS**

**Matrix Spike (BGC0771-MS1)**

Source: 2303414-01

Prepared & Analyzed: 03/23/23

Acenaphthene	0.0844	0.00500	mg/kg	0.0333	0.0190	196	31-137				QM-02
Anthracene	0.140	0.00500	"	0.0333	0.0284	335	30-120				QM-02
Benzo (a) anthracene	0.164	0.00500	"	0.0333	0.0331	394	30-120				QM-02
Benzo (a) pyrene	0.0862	0.00500	"	0.0333	0.0154	213	30-120				QM-02
Benzo (b) fluoranthene	0.135	0.00500	"	0.0333	0.0276	322	30-120				QM-02
Benzo (k) fluoranthene	0.0617	0.00500	"	0.0333	0.0106	153	30-120				QM-02
Chrysene	0.133	0.00500	"	0.0333	0.0280	315	30-120				QM-02
Dibenz (a,h) anthracene	0.0419	0.00500	"	0.0333	ND	126	30-120				QM-02
Fluoranthene	0.358	0.00500	"	0.0333	0.0860	816	30-120				QM-02
Fluorene	0.103	0.00500	"	0.0333	0.0213	246	30-120				QM-02
Indeno (1,2,3-cd) pyrene	0.0682	0.00500	"	0.0333	0.0108	172	30-120				QM-02
Pyrene	0.251	0.00500	"	0.0333	0.0621	568	35-142				QM-02
1-Methylnaphthalene	0.0302	0.00500	"	0.0333	ND	90.7	15-130				
2-Methylnaphthalene	0.0230	0.00500	"	0.0333	ND	69.0	15-130				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0299</i>		"	<i>0.0333</i>		<i>89.7</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0253</i>		"	<i>0.0333</i>		<i>75.9</i>	<i>40-150</i>				

**Matrix Spike Dup (BGC0771-MSD1)**

Source: 2303414-01

Prepared & Analyzed: 03/23/23

Acenaphthene	0.0544	0.00500	mg/kg	0.0333	0.0190	106	31-137	43.2	30		QM-02
Anthracene	0.0751	0.00500	"	0.0333	0.0284	140	30-120	60.4	30		QM-02
Benzo (a) anthracene	0.0942	0.00500	"	0.0333	0.0331	183	30-120	54.3	30		QM-02
Benzo (a) pyrene	0.0534	0.00500	"	0.0333	0.0154	114	30-120	47.0	30		QM-02
Benzo (b) fluoranthene	0.0831	0.00500	"	0.0333	0.0276	167	30-120	47.6	30		QM-02
Benzo (k) fluoranthene	0.0452	0.00500	"	0.0333	0.0106	104	30-120	30.9	30		QM-02
Chrysene	0.0718	0.00500	"	0.0333	0.0280	131	30-120	59.7	30		QM-02
Dibenz (a,h) anthracene	0.0337	0.00500	"	0.0333	ND	101	30-120	21.7	30		
Fluoranthene	0.199	0.00500	"	0.0333	0.0860	339	30-120	57.1	30		QM-02
Fluorene	0.0641	0.00500	"	0.0333	0.0213	128	30-120	46.8	30		QM-02
Indeno (1,2,3-cd) pyrene	0.0448	0.00500	"	0.0333	0.0108	102	30-120	41.5	30		QM-02
Pyrene	0.146	0.00500	"	0.0333	0.0621	251	35-142	53.3	30		QM-02
1-Methylnaphthalene	0.0305	0.00500	"	0.0333	ND	91.4	15-130	0.736	50		
2-Methylnaphthalene	0.0207	0.00500	"	0.0333	ND	62.2	15-130	10.4	50		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0311</i>		"	<i>0.0333</i>		<i>93.2</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0265</i>		"	<i>0.0333</i>		<i>79.6</i>	<i>40-150</i>				

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

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0653 - EPA 3050B**

**Blank (BGC0653-BLK1)**

Prepared: 03/20/23 Analyzed: 03/22/23

Boron ND 0.0100 mg/L

**LCS (BGC0653-BS1)**

Prepared: 03/20/23 Analyzed: 03/22/23

Boron 4.94 0.0100 mg/L 5.00 98.7 80-120

**Duplicate (BGC0653-DUP1)**

Source: 2303414-01

Prepared: 03/20/23 Analyzed: 03/22/23

Boron 0.162 0.0100 mg/L 0.165 1.71 20

**Matrix Spike (BGC0653-MS1)**

Source: 2303414-01

Prepared: 03/20/23 Analyzed: 03/22/23

Boron 5.29 0.0100 mg/L 5.00 0.165 102 75-125

**Matrix Spike Dup (BGC0653-MSD1)**

Source: 2303414-01

Prepared: 03/20/23 Analyzed: 03/22/23

Boron 5.17 0.0100 mg/L 5.00 0.165 100 75-125 2.30 25

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Project: Noble - Hanscome C02

Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0700 - General Preparation**

**Blank (BGC0700-BLK1)**

Prepared: 03/21/23 Analyzed: 03/22/23

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

**LCS (BGC0700-BS1)**

Prepared: 03/21/23 Analyzed: 03/22/23

Calcium	5.21	0.0500	mg/L wet	5.00		104	70-130			
Magnesium	4.95	0.0500	"	5.00		99.0	70-130			
Sodium	4.72	0.0500	"	5.00		94.3	70-130			

Summit Scientific

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6855 W. 119th Ave.  
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Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0684 - General Preparation**

**Duplicate (BGC0684-DUP1)**

**Source: 2303401-01**

Prepared & Analyzed: 03/21/23

% Solids	95.3	%		95.3		0.0166	20
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

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

**Summit Scientific**

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

**Batch BGC0729 - General Preparation**

**Blank (BGC0729-BLK1)**

Prepared & Analyzed: 03/22/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGC0729-BS1)**

Prepared & Analyzed: 03/22/23

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

**Duplicate (BGC0729-DUP1)**

Source: 2303398-01

Prepared & Analyzed: 03/22/23

Specific Conductance (EC) 5.12 0.0100 mmhos/cm 5.28 3.11 20

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Hanscome C02  
Project Number: UWRWE-A2384-ABN  
Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

**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 BGC0728 - General Preparation**

**LCS (BGC0728-BS1)**

Prepared & Analyzed: 03/22/23

pH	9.18		pH Units	9.18		100	95-105			
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**Duplicate (BGC0728-DUP1)**

Source: 2303398-01

Prepared & Analyzed: 03/22/23

pH	7.34		pH Units	7.37			0.408	20		
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Noble - Hanscome C02

Project Number: UWRWE-A2384-ABN

Project Manager: Jacob Whritenour

**Reported:**  
03/24/23 14:23

### Notes and Definitions

- QM-02 The RPD and/or percent recovery for this QC sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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