

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 10, 2025

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Civitas - Flanigan 1B-6H

Work Order #2501022

Enclosed are the results of analyses for samples received by Summit Scientific on 01/03/25 17:22. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jacob Wood For Paul Shrewsbury

President



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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-B01@4'	2501022-01	Soil	01/03/25 10:00	01/03/25 17:22
FL-B01@6'	2501022-02	Soil	01/03/25 10:05	01/03/25 17:22
FL-B02@4'	2501022-03	Soil	01/03/25 11:00	01/03/25 17:22
SEP1-B01@3"	2501022-04	Soil	01/03/25 11:20	01/03/25 17:22
SEP1-B02@3"	2501022-05	Soil	01/03/25 11:22	01/03/25 17:22
SEP2-B01@3"	2501022-06	Soil	01/03/25 11:24	01/03/25 17:22
SEP2-B02@3"	2501022-07	Soil	01/03/25 11:26	01/03/25 17:22
BG01@4'	2501022-08	Soil	01/03/25 12:40	01/03/25 17:22
BG01@6'	2501022-09	Soil	01/03/25 12:45	01/03/25 17:22
BG02@4'	2501022-10	Soil	01/03/25 12:50	01/03/25 17:22
BG02@6'	2501022-11	Soil	01/03/25 12:55	01/03/25 17:22

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SS

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

Lab ID	Page 1 of 1
2501022	

Send Data To:		Send Invoice To:	
Client: Civitas / Tasman	Project Manager: Sam Vogt / Jacob Evans	Company: Civitas	
Address: 6855 W. 119th Ave.	E-Mail: Svogt@tasman-geo.com	Project Name/Location:	
City/State/Zip: Broomfield, CO 80020	Jevans@civitasresources.com	AFE#: 24291	
Phone: PM Phone # - (610)-405-9078	Project Name: Flanigan 1B-6H	PO/Billing Codes: 8523.145	
Sampler Name: Isabel Eikermann, Ben Leng	Project Number:	Contact:	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested							Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN	1,2,4 + 1,3,5 TMB's	TPH(GRO,DRO,ORO)	PAH	pH,EC,SAR		Boron	Metals	
1	WT-B01 @ 4'	11/3/25	1000	2			X			X									X	Full Table 915	
2	FL-B01 @ 6'		1000																		
3	FL-B02 @ 4'		1100																		
4	SEP1-B01 @ 3"		1120																		
5	SEP1-B02 @ 3"		1122																		
6	SEP2-B01 @ 3"		1124																		
7	SEP2-B02 @ 3"		1126																		
8	BG01 @ 4'		1240													X	X	X			
9	BG01 @ 6'		1245																		
10	BG02 @ 4'		1250																		
11	BG02 @ 6'		1255																		
12																					
13																					
14																					
15																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days	Field DO	Notes:
<i>John Lutz</i>	11/3/25 1730	Tasman Lockbox	11/3/25 1730	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
<i>Casman Lockbox</i>	1/3/25 1728	<i>[Signature]</i>	1/3/25 1728	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 59	Corrected Temperature: 0	IR gun #:	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2501022

Client: Curtis/Traman Client Project ID: Flanigan IB-6H

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

-

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

Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NOTE
If custody seals are present, are they intact? ⁽¹⁾	<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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2 samples no sample times
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ 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):				

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

AS
Custodian Printed Name

1/3/25
Date/Time



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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

WH-B01@4'
2501022-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIA0281	01/08/25	01/09/25	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: **01/03/25 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0342	85.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0383	95.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0373	93.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.46	75.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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2501022-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BIA0341	01/09/25	01/12/25	EPA 8270D SIM	R-01
Anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (a) anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Chrysene	ND	0.0500	"	"	"	"	"	"	R-01
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Fluorene	ND	0.0500	"	"	"	"	"	"	R-01
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	R-01
Pyrene	ND	0.0500	"	"	"	"	"	"	R-01
1-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	R-01
2-Methylnaphthalene	ND	0.0500	"	"	"	"	"	"	R-01

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0262	78.7 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0297	89.1 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	5.12	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Civitas - Flanigan 1B-6H

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Project Manager: Sam Vogt

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WH-B01@4'
2501022-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.03	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	929	0.400	"	"	"	"	"	"
Cadmium	0.430	0.200	"	"	"	"	"	"
Copper	22.4	0.400	"	"	"	"	"	"
Lead	6.14	0.200	"	"	"	"	"	"
Nickel	7.63	0.400	"	"	"	"	"	"
Silver	0.0683	0.0200	"	"	"	"	"	"
Zinc	26.2	0.400	"	"	"	"	"	"
Selenium	0.419	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 01/03/25 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: 01/03/25 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.9	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	0.232	0.0500	"	"	"	"	"	"	
Sodium	209	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 01/03/25 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	9.30	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 01/03/25 10:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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03/10/25 11:32

WH-B01@4'
2501022-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.8	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 10:00**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.97	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	12.0		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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FL-B01@6'
2501022-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIA0281	01/08/25	01/09/25	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	0.0042	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0352	88.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0361	90.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.2	81.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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FL-B01@6'
2501022-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA0341	01/09/25	01/12/25	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	0.00577	0.00500	"	"	"	"	"	"	

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0218	65.5 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0198	59.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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03/10/25 11:32

FL-B01@6'
2501022-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.40	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	194	0.400	"	"	"	"	"	"
Cadmium	0.371	0.200	"	"	"	"	"	"
Copper	8.15	0.400	"	"	"	"	"	"
Lead	12.2	0.200	"	"	"	"	"	"
Nickel	8.59	0.400	"	"	"	"	"	"
Silver	0.0759	0.0200	"	"	"	"	"	"
Zinc	29.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.5	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	9.45	0.0500	"	"	"	"	"	"	
Sodium	57.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.24	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

FL-B01@6'
2501022-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.4	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 10:05**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.436	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

Summit Scientific



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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

FL-B02@4'
2501022-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIA0281	01/08/25	01/09/25	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: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0358	89.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0362	90.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.5	92.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

FL-B02@4'
2501022-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA0341	01/09/25	01/12/25	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	0.0105	0.00500	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	56.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0174	52.1 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 11:00**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

FL-B02@4'
2501022-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.25	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	107	0.400	"	"	"	"	"	"
Cadmium	0.349	0.200	"	"	"	"	"	"
Copper	6.57	0.400	"	"	"	"	"	"
Lead	10.0	0.200	"	"	"	"	"	"
Nickel	6.79	0.400	"	"	"	"	"	"
Silver	0.0600	0.0200	"	"	"	"	"	"
Zinc	28.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	59.2	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	5.27	0.0500	"	"	"	"	"	"	
Sodium	2.17	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0725	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 11:00**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

FL-B02@4'
2501022-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.3	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 11:00**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.139	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.63		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B01@3"
2501022-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIA0281	01/08/25	01/09/25	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	0.75	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0346	86.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0361	90.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	7300	50	mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	2700	50	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	24.7	198 %	30-150		"	"	"	"	S-02

PAH by EPA Method 8270D SIM

O-02

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Tasman Geosciences
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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B01@3"
2501022-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

O-02

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BIA0341	01/09/25	01/12/25	EPA 8270D SIM	R-01
Anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (a) anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Chrysene	0.357	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Fluoranthene	0.0732	0.0500	"	"	"	"	"	"	
Fluorene	ND	0.0500	"	"	"	"	"	"	R-01
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	R-01
Pyrene	0.215	0.0500	"	"	"	"	"	"	
1-Methylnaphthalene	1.01	0.0500	"	"	"	"	"	"	
2-Methylnaphthalene	1.05	0.0500	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0533	160 %	40-140		"	"	"	"	S-02
Surrogate: Fluoranthene-d10	0.0675	203 %	40-140		"	"	"	"	S-02

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 11:20**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B01@3"
2501022-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.62	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	58.2	0.400	"	"	"	"	"	"
Cadmium	0.230	0.200	"	"	"	"	"	"
Copper	4.99	0.400	"	"	"	"	"	"
Lead	5.30	0.200	"	"	"	"	"	"
Nickel	3.08	0.400	"	"	"	"	"	"
Silver	0.0331	0.0200	"	"	"	"	"	"
Zinc	17.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	168	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	30.0	0.0500	"	"	"	"	"	"	
Sodium	264	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.93	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B01@3"
2501022-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.1	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 11:20**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.66	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.10		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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6855 W. 119th Ave.
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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B02@3"
2501022-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIA0281	01/08/25	01/09/25	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: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0438	110 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.9	103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B02@3"
2501022-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA0341	01/09/25	01/12/25	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: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0239	71.8 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0233	70.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 11:22**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B02@3"
2501022-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.51	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	94.9	0.400	"	"	"	"	"	"
Cadmium	0.339	0.200	"	"	"	"	"	"
Copper	5.77	0.400	"	"	"	"	"	"
Lead	7.45	0.200	"	"	"	"	"	"
Nickel	4.40	0.400	"	"	"	"	"	"
Silver	0.0486	0.0200	"	"	"	"	"	"
Zinc	22.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	49.3	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	8.69	0.0500	"	"	"	"	"	"	
Sodium	23.4	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.808	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 11:22**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP1-B02@3"
2501022-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.8	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 11:22**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.541	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.84		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B01@3"
2501022-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.20		mg/kg	100	BIA0281	01/08/25	01/12/25	EPA 8260B	R-05
Toluene	2.4	0.50		"	"	"	"	"	"	
Ethylbenzene	5.7	0.50		"	"	"	"	"	"	
Xylenes (total)	37	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	32	0.50		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	8.7	0.50		"	"	"	"	"	"	
Naphthalene	8.9	0.38		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1300	50		"	"	"	"	"	"	

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0446	111 %		50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0432	108 %		50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0447	112 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	7500	50		mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	1600	50		"	"	"	"	"	"	

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: o-Terphenyl</i>	11.1	88.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B01@3"
2501022-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BIA0341	01/09/25	01/12/25	EPA 8270D SIM	R-01
Anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (a) anthracene	0.228	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Chrysene	0.329	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	R-01
Fluoranthene	ND	0.0500	"	"	"	"	"	"	R-01
Fluorene	2.58	0.0500	"	"	"	"	"	"	E
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	R-01
Pyrene	ND	0.0500	"	"	"	"	"	"	R-01
1-Methylnaphthalene	20.2	0.0500	"	"	"	"	"	"	E
2-Methylnaphthalene	24.4	0.0500	"	"	"	"	"	"	E

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.388	1160 %	40-140		"	"	"	"	S-02
Surrogate: Fluoranthene-d10	0.104	311 %	40-140		"	"	"	"	S-02

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 11:24**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B01@3"
2501022-06 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.98	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	82.2	0.400	"	"	"	"	"	"
Cadmium	0.342	0.200	"	"	"	"	"	"
Copper	21.9	0.400	"	"	"	"	"	"
Lead	7.29	0.200	"	"	"	"	"	"
Nickel	3.71	0.400	"	"	"	"	"	"
Silver	0.0456	0.0200	"	"	"	"	"	"
Zinc	28.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	140	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	26.8	0.0500	"	"	"	"	"	"	
Sodium	722	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	14.6	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 11:24**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B01@3"
2501022-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.2	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 11:24**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.65	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.11		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B02@3''
2501022-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIA0281	01/08/25	01/12/25	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: **01/03/25 11:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0400	99.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.6 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIA0284	01/08/25	01/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.8	86.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B02@3"
2501022-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA0341	01/09/25	01/12/25	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	0.00598	0.00500	"	"	"	"	"	"	

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0189	56.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0193	58.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 11:26**

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B02@3"
2501022-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.71	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B
Barium	48.7	0.400	"	"	"	"	"	"
Cadmium	0.216	0.200	"	"	"	"	"	"
Copper	4.15	0.400	"	"	"	"	"	"
Lead	3.91	0.200	"	"	"	"	"	"
Nickel	3.21	0.400	"	"	"	"	"	"
Silver	0.0241	0.0200	"	"	"	"	"	"
Zinc	21.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.2	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	6.13	0.0500	"	"	"	"	"	"	
Sodium	9.85	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.390	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 11:26**

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: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

SEP2-B02@3"
2501022-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.2	%	1	BIA1132	01/24/25	01/27/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 11:26**

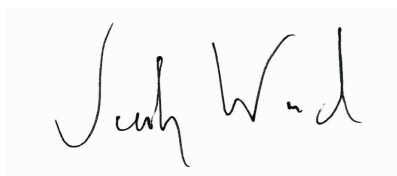
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.341	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.94		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG01@4'
2501022-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.98	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B	
Barium	134	0.400	"	"	"	"	"	"	
Cadmium	0.340	0.200	"	"	"	"	"	"	
Copper	6.58	0.400	"	"	"	"	"	"	
Lead	12.0	0.200	"	"	"	"	"	"	
Nickel	7.58	0.400	"	"	"	"	"	"	
Silver	0.0743	0.0200	"	"	"	"	"	"	
Zinc	26.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	62.8	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	9.56	0.0500	"	"	"	"	"	"	
Sodium	91.3	0.0500	"	"	"	"	"	"	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG01@4'
2501022-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.84	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.3		%	1	BIA1132	01/24/25	01/27/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.621	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG01@6'
2501022-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	5.25	0.200		mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B	
Barium	142	0.400		"	"	"	"	"	"	
Cadmium	0.365	0.200		"	"	"	"	"	"	
Copper	6.93	0.400		"	"	"	"	"	"	
Lead	11.4	0.200		"	"	"	"	"	"	
Nickel	8.01	0.400		"	"	"	"	"	"	
Silver	0.0518	0.0200		"	"	"	"	"	"	
Zinc	25.7	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	88.8	0.0500		mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	84.5	0.0500		"	"	"	"	"	"	
Sodium	202	0.0500		"	"	"	"	"	"	

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Broomfield CO, 80020

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG01@6'
2501022-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.68	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.7		%	1	BIA1132	01/24/25	01/27/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.10	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.25		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG02@4'
2501022-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB0828	02/17/25	02/24/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.85	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B	
Barium	130	0.400	"	"	"	"	"	"	
Cadmium	0.350	0.200	"	"	"	"	"	"	
Copper	6.89	0.400	"	"	"	"	"	"	
Lead	11.6	0.200	"	"	"	"	"	"	
Nickel	8.00	0.400	"	"	"	"	"	"	
Silver	0.0533	0.0200	"	"	"	"	"	"	
Zinc	26.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	97.3	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	47.8	0.0500	"	"	"	"	"	"	
Sodium	190	0.0500	"	"	"	"	"	"	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG02@4'
2501022-10 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.94	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.0		%	1	BIA1132	01/24/25	01/27/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.70	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG02@6'
2501022-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB0826	02/17/25	02/22/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.48	0.200	mg/kg dry	1	BIB1142	02/20/25	03/01/25	EPA 6020B	
Barium	139	0.400	"	"	"	"	"	"	
Cadmium	0.326	0.200	"	"	"	"	"	"	
Copper	6.43	0.400	"	"	"	"	"	"	
Lead	10.1	0.200	"	"	"	"	"	"	
Nickel	7.51	0.400	"	"	"	"	"	"	
Silver	0.0691	0.0200	"	"	"	"	"	"	
Zinc	24.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA1008	01/22/25	01/27/25	EPA 7196A	

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

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	53.0	0.0500	mg/L dry	1	BIA1150	01/24/25	01/29/25	EPA 6020B	
Magnesium	18.0	0.0500	"	"	"	"	"	"	
Sodium	126	0.0500	"	"	"	"	"	"	

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Tasman Geosciences
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Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

BG02@6'
2501022-11 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.82	0.00100	units	1	BIA1428	01/30/25	01/30/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BIA1132	01/24/25	01/27/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.920	0.0100	mmhos/cm	1	BIA1148	01/24/25	01/28/25	EPA 120.1	

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

Date Sampled: **01/03/25 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19		pH Units	1	BIA1146	01/24/25	01/28/25	EPA 9045D	

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA0281 - EPA 5030 Soil MS

Blank (BIA0281-BLK1)

Prepared: 01/08/25 Analyzed: 01/09/25

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>	<i>0.0340</i>		<i>"</i>	<i>0.0400</i>		<i>85.1</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>96.9</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0385</i>		<i>"</i>	<i>0.0400</i>		<i>96.2</i>	<i>50-150</i>			

LCS (BIA0281-BS1)

Prepared: 01/08/25 Analyzed: 01/09/25

Benzene	0.0948	0.0020	mg/kg	0.100		94.8	70-130			
Toluene	0.0926	0.0050	"	0.100		92.6	70-130			
Ethylbenzene	0.0998	0.0050	"	0.100		99.8	70-130			
m,p-Xylene	0.193	0.010	"	0.200		96.3	70-130			
o-Xylene	0.0922	0.0050	"	0.100		92.2	70-130			
1,2,4-Trimethylbenzene	0.0920	0.0050	"	0.100		92.0	70-130			
1,3,5-Trimethylbenzene	0.0934	0.0050	"	0.100		93.4	70-130			
Naphthalene	0.0815	0.0038	"	0.100		81.5	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0356</i>		<i>"</i>	<i>0.0400</i>		<i>89.1</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.3</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0369</i>		<i>"</i>	<i>0.0400</i>		<i>92.2</i>	<i>50-150</i>			

Matrix Spike (BIA0281-MS1)

Source: 2501022-01

Prepared: 01/08/25 Analyzed: 01/09/25

Benzene	0.106	0.0020	mg/kg	0.100	ND	106	70-130			
Toluene	0.102	0.0050	"	0.100	ND	102	70-130			
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
m,p-Xylene	0.201	0.010	"	0.200	ND	101	70-130			
o-Xylene	0.0945	0.0050	"	0.100	ND	94.5	70-130			
1,2,4-Trimethylbenzene	0.0903	0.0050	"	0.100	ND	90.3	70-130			
1,3,5-Trimethylbenzene	0.0917	0.0050	"	0.100	ND	91.7	70-130			
Naphthalene	0.0823	0.0038	"	0.100	ND	82.3	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0404</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0406</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.6</i>	<i>50-150</i>			

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BIA0281 - EPA 5030 Soil MS

Matrix Spike Dup (BIA0281-MSD1)	Source: 2501022-01			Prepared: 01/08/25 Analyzed: 01/09/25					
Benzene	0.0934	0.0020	mg/kg	0.100	ND	93.4	70-130	13.1	30
Toluene	0.0888	0.0050	"	0.100	ND	88.8	70-130	14.3	30
Ethylbenzene	0.0956	0.0050	"	0.100	ND	95.6	70-130	8.10	30
m,p-Xylene	0.185	0.010	"	0.200	ND	92.5	70-130	8.48	30
o-Xylene	0.0854	0.0050	"	0.100	ND	85.4	70-130	10.0	30
1,2,4-Trimethylbenzene	0.0842	0.0050	"	0.100	ND	84.2	70-130	7.01	30
1,3,5-Trimethylbenzene	0.0833	0.0050	"	0.100	ND	83.3	70-130	9.56	30
Naphthalene	0.0815	0.0038	"	0.100	ND	81.5	70-130	1.03	30
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0354</i>		<i>"</i>	<i>0.0400</i>		<i>88.5</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>0.0366</i>		<i>"</i>	<i>0.0400</i>		<i>91.5</i>	<i>50-150</i>		

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Broomfield CO, 80020

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIA0284 - EPA 3550A

Blank (BIA0284-BLK1)

Prepared: 01/08/25 Analyzed: 01/13/25

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	16.4		"	12.5		131	30-150			

LCS (BIA0284-BS1)

Prepared: 01/08/25 Analyzed: 01/13/25

C10-C28 (DRO)	565	50	mg/kg	500		113	70-130			
Surrogate: <i>o</i> -Terphenyl	14.0		"	12.5		112	30-150			

Matrix Spike (BIA0284-MS1)

Source: 2501022-01

Prepared: 01/08/25 Analyzed: 01/13/25

C10-C28 (DRO)	576	50	mg/kg	500	ND	115	70-130			
Surrogate: <i>o</i> -Terphenyl	11.9		"	12.5		95.4	30-150			

Matrix Spike Dup (BIA0284-MSD1)

Source: 2501022-01

Prepared: 01/08/25 Analyzed: 01/13/25

C10-C28 (DRO)	534	50	mg/kg	500	ND	107	70-130	7.51	20	
Surrogate: <i>o</i> -Terphenyl	9.83		"	12.5		78.6	30-150			

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA0341 - EPA 5030 Soil MS

Blank (BIA0341-BLK1)

Prepared: 01/09/25 Analyzed: 01/12/25

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0254</i>		"	<i>0.0333</i>		<i>76.3</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0236</i>		"	<i>0.0333</i>		<i>70.7</i>	<i>40-140</i>			

LCS (BIA0341-BS1)

Prepared: 01/09/25 Analyzed: 01/12/25

Acenaphthene	0.0215	0.00500	mg/kg	0.0333		64.6	40-140			
Anthracene	0.0215	0.00500	"	0.0333		64.6	40-140			
Benzo (a) anthracene	0.0259	0.00500	"	0.0333		77.6	40-140			
Benzo (a) pyrene	0.0199	0.00500	"	0.0333		59.8	40-140			
Benzo (b) fluoranthene	0.0215	0.00500	"	0.0333		64.6	40-140			
Benzo (k) fluoranthene	0.0172	0.00500	"	0.0333		51.7	40-140			
Chrysene	0.0212	0.00500	"	0.0333		63.7	40-140			
Dibenz (a,h) anthracene	0.0236	0.00500	"	0.0333		70.7	40-140			
Fluoranthene	0.0191	0.00500	"	0.0333		57.2	40-140			
Fluorene	0.0232	0.00500	"	0.0333		69.6	40-140			
Indeno (1,2,3-cd) pyrene	0.0137	0.00500	"	0.0333		41.0	40-140			
Pyrene	0.0203	0.00500	"	0.0333		60.9	40-140			
1-Methylnaphthalene	0.0229	0.00500	"	0.0333		68.6	40-140			
2-Methylnaphthalene	0.0245	0.00500	"	0.0333		73.4	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0216</i>		"	<i>0.0333</i>		<i>64.8</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0220</i>		"	<i>0.0333</i>		<i>66.1</i>	<i>40-140</i>			

Summit Scientific

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA0341 - EPA 5030 Soil MS

Matrix Spike (BIA0341-MS1)	Source: 2501021-01			Prepared: 01/09/25 Analyzed: 01/12/25						
Acenaphthene	0.0226	0.00500	mg/kg	0.0333	ND	67.7	40-140			
Anthracene	0.0206	0.00500	"	0.0333	ND	61.7	40-140			
Benzo (a) anthracene	0.0258	0.00500	"	0.0333	ND	77.3	40-140			
Benzo (a) pyrene	0.0190	0.00500	"	0.0333	ND	57.0	40-140			
Benzo (b) fluoranthene	0.0226	0.00500	"	0.0333	0.00485	53.4	40-140			
Benzo (k) fluoranthene	0.0138	0.00500	"	0.0333	ND	41.4	40-140			
Chrysene	0.0227	0.00500	"	0.0333	0.00485	53.5	40-140			
Dibenz (a,h) anthracene	0.0283	0.00500	"	0.0333	ND	84.8	40-140			
Fluoranthene	0.0185	0.00500	"	0.0333	ND	55.6	40-140			
Fluorene	0.0285	0.00500	"	0.0333	ND	85.6	40-140			
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.5	40-140			
Pyrene	0.0298	0.00500	"	0.0333	0.00714	68.0	40-140			
1-Methylnaphthalene	0.0270	0.00500	"	0.0333	ND	81.0	40-140			
2-Methylnaphthalene	0.0285	0.00500	"	0.0333	0.00724	63.7	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0213</i>		<i>"</i>	<i>0.0333</i>		<i>63.8</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0208</i>		<i>"</i>	<i>0.0333</i>		<i>62.4</i>	<i>40-140</i>			

Matrix Spike Dup (BIA0341-MSD1)	Source: 2501021-01			Prepared: 01/09/25 Analyzed: 01/12/25						
Acenaphthene	0.0273	0.00500	mg/kg	0.0333	ND	81.9	40-140	19.1	30	
Anthracene	0.0255	0.00500	"	0.0333	ND	76.4	40-140	21.3	30	
Benzo (a) anthracene	0.0312	0.00500	"	0.0333	ND	93.7	40-140	19.1	30	
Benzo (a) pyrene	0.0242	0.00500	"	0.0333	ND	72.5	40-140	23.9	30	
Benzo (b) fluoranthene	0.0295	0.00500	"	0.0333	0.00485	74.0	40-140	26.4	30	
Benzo (k) fluoranthene	0.0171	0.00500	"	0.0333	ND	51.2	40-140	21.1	30	
Chrysene	0.0274	0.00500	"	0.0333	0.00485	67.6	40-140	18.7	30	
Dibenz (a,h) anthracene	0.0340	0.00500	"	0.0333	ND	102	40-140	18.4	30	
Fluoranthene	0.0191	0.00500	"	0.0333	ND	57.3	40-140	2.97	30	
Fluorene	0.0324	0.00500	"	0.0333	ND	97.1	40-140	12.5	30	
Indeno (1,2,3-cd) pyrene	0.0216	0.00500	"	0.0333	ND	64.7	40-140	17.2	30	
Pyrene	0.0343	0.00500	"	0.0333	0.00714	81.6	40-140	14.1	30	
1-Methylnaphthalene	0.0314	0.00500	"	0.0333	ND	94.1	40-140	14.9	30	
2-Methylnaphthalene	0.0348	0.00500	"	0.0333	0.00724	82.6	40-140	19.9	30	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0253</i>		<i>"</i>	<i>0.0333</i>		<i>75.9</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0212</i>		<i>"</i>	<i>0.0333</i>		<i>63.5</i>	<i>40-140</i>			

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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

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

Batch BIB0826 - EPA 3050B

Blank (BIB0826-BLK1)				Prepared: 02/17/25 Analyzed: 02/22/25							
Boron	ND	2.00	mg/L								
LCS (BIB0826-BS1)				Prepared: 02/17/25 Analyzed: 02/22/25							
Boron	5.14	2.00	mg/L	5.00		103	80-120				
Duplicate (BIB0826-DUP1)				Source: 2501010-18 Prepared: 02/17/25 Analyzed: 02/22/25							
Boron	1.89	2.00	mg/L		1.95				3.02	20	
Matrix Spike (BIB0826-MS1)				Source: 2501010-18 Prepared: 02/17/25 Analyzed: 02/22/25							
Boron	6.50	2.00	mg/L	4.99	1.95	91.1	75-125				
Matrix Spike Dup (BIB0826-MSD1)				Source: 2501010-18 Prepared: 02/17/25 Analyzed: 02/24/25							
Boron	6.50	2.00	mg/L	4.99	1.95	91.1	75-125	0.0617		25	

Batch BIB0828 - EPA 3050B

Blank (BIB0828-BLK1)				Prepared: 02/17/25 Analyzed: 02/24/25							
Boron	ND	2.00	mg/L								
LCS (BIB0828-BS1)				Prepared: 02/17/25 Analyzed: 02/24/25							
Boron	4.46	2.00	mg/L	5.00		89.1	80-120				
Duplicate (BIB0828-DUP1)				Source: 2501018-01 Prepared: 02/17/25 Analyzed: 02/24/25							
Boron	ND	2.00	mg/L		ND					20	
Matrix Spike (BIB0828-MS1)				Source: 2501018-01 Prepared: 02/17/25 Analyzed: 02/24/25							
Boron	4.73	2.00	mg/L	5.02	ND	94.2	75-125				

Summit Scientific

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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

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

Batch BIB0828 - EPA 3050B


Matrix Spike Dup (BIB0828-MSD1)

Source: 2501018-01

Prepared: 02/17/25 Analyzed: 02/24/25

Boron	4.79	2.00	mg/L	5.02	ND	95.4	75-125	1.22	25	
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIB1142 - EPA 3050B

Blank (BIB1142-BLK1)

Prepared: 02/20/25 Analyzed: 03/01/25

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

LCS (BIB1142-BS1)

Prepared: 02/20/25 Analyzed: 03/01/25

Arsenic	40.7	0.200	mg/kg wet	38.5	106	80-120
Barium	42.4	0.400	"	38.5	110	80-120
Cadmium	1.97	0.200	"	1.92	102	80-120
Copper	43.2	0.400	"	38.5	112	80-120
Lead	20.0	0.200	"	19.2	104	80-120
Nickel	42.6	0.400	"	38.5	111	80-120
Silver	2.02	0.0200	"	1.92	105	80-120
Zinc	41.7	0.400	"	38.5	109	80-120
Selenium	3.87	0.260	"	3.85	101	80-120

Duplicate (BIB1142-DUP1)

Source: 2501011-01

Prepared: 02/20/25 Analyzed: 03/04/25

Arsenic	16.3	0.200	mg/kg dry	16.2	0.848	20	
Barium	38.6	0.400	"	52.8	31.1	20	QR-04
Cadmium	0.128	0.200	"	0.124	2.74	20	
Copper	5.65	0.400	"	5.43	4.04	20	
Lead	12.9	0.200	"	13.0	1.06	20	
Nickel	8.34	0.400	"	8.10	2.91	20	
Silver	0.0192	0.0200	"	0.0192	0.00	20	
Zinc	35.3	0.400	"	33.8	4.36	20	
Selenium	ND	0.260	"	ND		20	

Summit Scientific

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIB1142 - EPA 3050B

Matrix Spike (BIB1142-MS1)

Source: 2501011-01

Prepared: 02/20/25 Analyzed: 03/01/25

Arsenic	61.7	0.200	mg/kg dry	48.1	16.2	94.7	75-125				
Barium	81.0	0.400	"	48.1	52.8	58.5	75-125				QM-05
Cadmium	2.48	0.200	"	2.41	0.124	98.0	75-125				
Copper	35.1	0.400	"	48.1	5.43	61.6	75-125				QM-05
Lead	36.3	0.200	"	24.1	13.0	96.8	75-125				
Nickel	37.3	0.400	"	48.1	8.10	60.7	75-125				QM-05
Silver	2.38	0.0200	"	2.41	0.0192	98.1	75-125				
Zinc	62.2	0.400	"	48.1	33.8	59.0	75-125				QM-05
Selenium	4.71	0.260	"	4.81	ND	97.9	75-125				

Matrix Spike Dup (BIB1142-MSD1)

Source: 2501011-01

Prepared: 02/20/25 Analyzed: 03/01/25

Arsenic	61.4	0.200	mg/kg dry	48.5	16.2	93.2	75-125	0.550	25		
Barium	83.2	0.400	"	48.5	52.8	62.6	75-125	2.67	25		QM-05
Cadmium	2.61	0.200	"	2.43	0.124	102	75-125	4.89	25		
Copper	36.5	0.400	"	48.5	5.43	63.9	75-125	3.89	25		QM-05
Lead	37.7	0.200	"	24.3	13.0	102	75-125	3.66	25		
Nickel	38.9	0.400	"	48.5	8.10	63.5	75-125	4.16	25		QM-05
Silver	2.51	0.0200	"	2.43	0.0192	103	75-125	5.41	25		
Zinc	64.1	0.400	"	48.5	33.8	62.4	75-125	2.96	25		QM-05
Selenium	5.02	0.260	"	4.85	ND	103	75-125	6.25	25		

Summit Scientific

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA1008 - 3060A Mod

Blank (BIA1008-BLK1)

Prepared: 01/22/25 Analyzed: 01/27/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIA1008-BS1)

Prepared: 01/22/25 Analyzed: 01/27/25

Chromium, Hexavalent 26.9 0.30 mg/kg wet 25.8 104 80-120

Duplicate (BIA1008-DUP1)

Source: 2501022-01

Prepared: 01/22/25 Analyzed: 01/27/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIA1008-MS1)

Source: 2501022-01

Prepared: 01/22/25 Analyzed: 01/27/25

Chromium, Hexavalent 27.7 0.30 mg/kg dry 30.1 ND 92.0 75-125

Matrix Spike Dup (BIA1008-MSD1)

Source: 2501022-01

Prepared: 01/22/25 Analyzed: 01/27/25

Chromium, Hexavalent 31.3 0.30 mg/kg dry 30.4 ND 103 75-125 12.3 20

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA1150 - General Preparation

Blank (BIA1150-BLK1)

Prepared: 01/24/25 Analyzed: 01/29/25

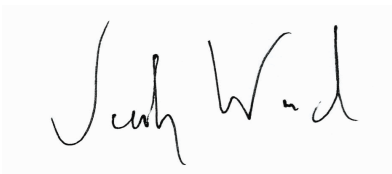
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BIA1150-BS1)

Prepared: 01/24/25 Analyzed: 01/30/25

Calcium	6.38	0.0500	mg/L wet	5.00		128	70-130			
Magnesium	4.58	0.0500	"	5.00		91.6	70-130			
Sodium	4.60	0.0500	"	5.00		92.1	70-130			

Summit Scientific



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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA1132 - General Preparation

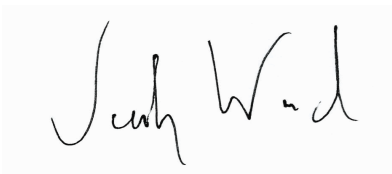
Duplicate (BIA1132-DUP1)

Source: 2501019-01

Prepared: 01/24/25 Analyzed: 01/27/25

% Solids	83.0	%		82.9		0.109	20
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Summit Scientific



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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA1148 - General Preparation

Blank (BIA1148-BLK1)

Prepared: 01/24/25 Analyzed: 01/28/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIA1148-BS1)

Prepared: 01/24/25 Analyzed: 01/28/25

Specific Conductance (EC) 1.36 0.0100 mmhos/cm 1.41 96.3 95-105

Duplicate (BIA1148-DUP1)

Source: 2501019-01

Prepared: 01/24/25 Analyzed: 01/28/25

Specific Conductance (EC) 0.591 0.0100 mmhos/cm 0.616 4.11 20

Summit Scientific

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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

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 BIA1146 - General Preparation

LCS (BIA1146-BS1)

Prepared: 01/24/25 Analyzed: 01/28/25

pH	9.16	pH Units	9.18	99.7	95-105
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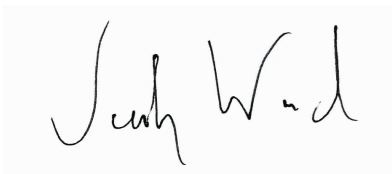
Duplicate (BIA1146-DUP1)

Source: 2501019-01

Prepared: 01/24/25 Analyzed: 01/28/25

pH	11.4	pH Units	11.4	0.202	20
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Summit Scientific



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

Project: Civitas - Flanigan 1B-6H

Project Number: 24291
Project Manager: Sam Vogt

Reported:
03/10/25 11:32

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to matrix interference. Matrix interference was verified via reanalysis.
- R-05 The reporting limit for this sample has been raised due to the presence of high levels of non-target analytes.
- R-01 The reporting limit for this analyte has been raised to account for matrix interference.
- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- O-02 Due to matrix interference, the sample cannot be accurately quantitated. The reported result is qualitative.
- 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