

**State of CO 1-66-36-1609CDH,
1S-66-36-0108CH, & 1S-66-36-0108BH**

NWNW Sec. 36-T1S-R66W

API #s: 001-09780 (1-66-36-1609CDH), 001-09782
(1S-66-36-0108CH), & 001-09783 (1S-66-36-0108BH)

Remediation Project #: 28722

Form 19 Data Package

June 2023

Prepared by Tasman, Inc.





On behalf of Extraction Oil and Gas, Inc.

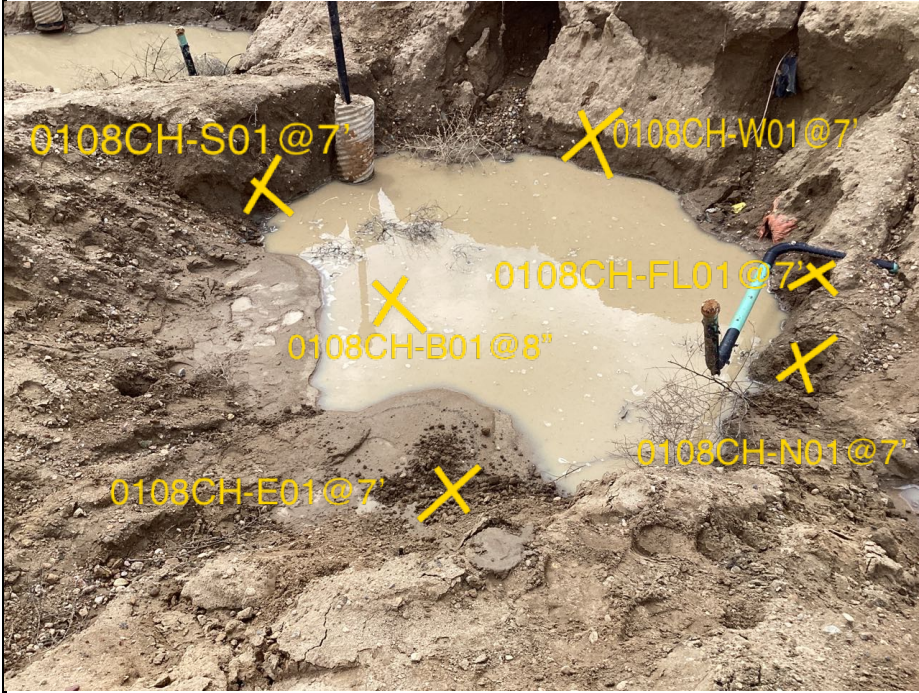
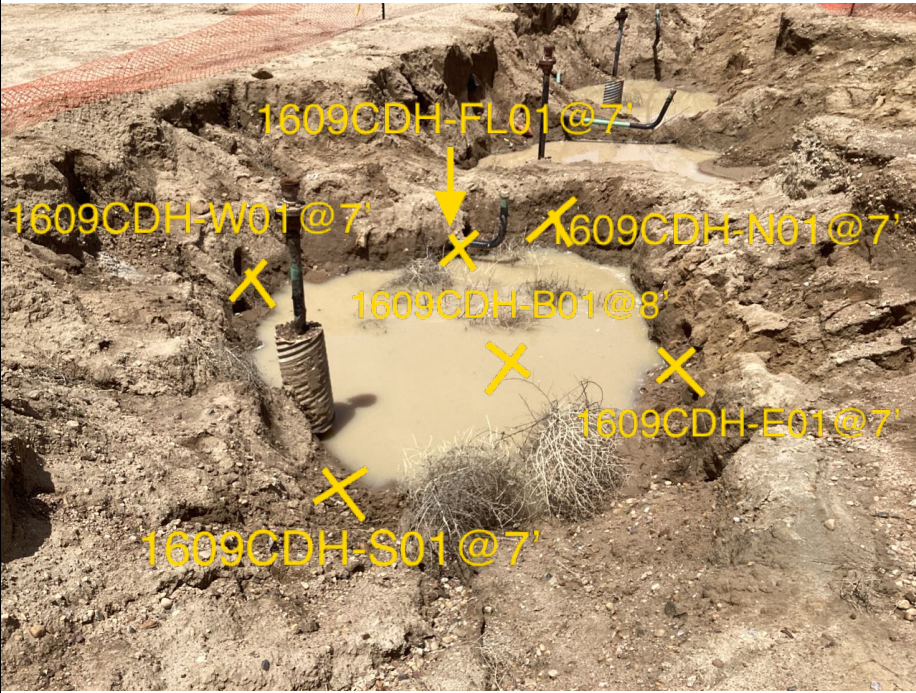


PHOTO LOG

											
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:					
Material:		Volume:		Contents:		Material:		Volume:		Contents:	
Notes/Conditions: Surrounding land use facing North						Notes/Conditions: Surrounding land use facing West					

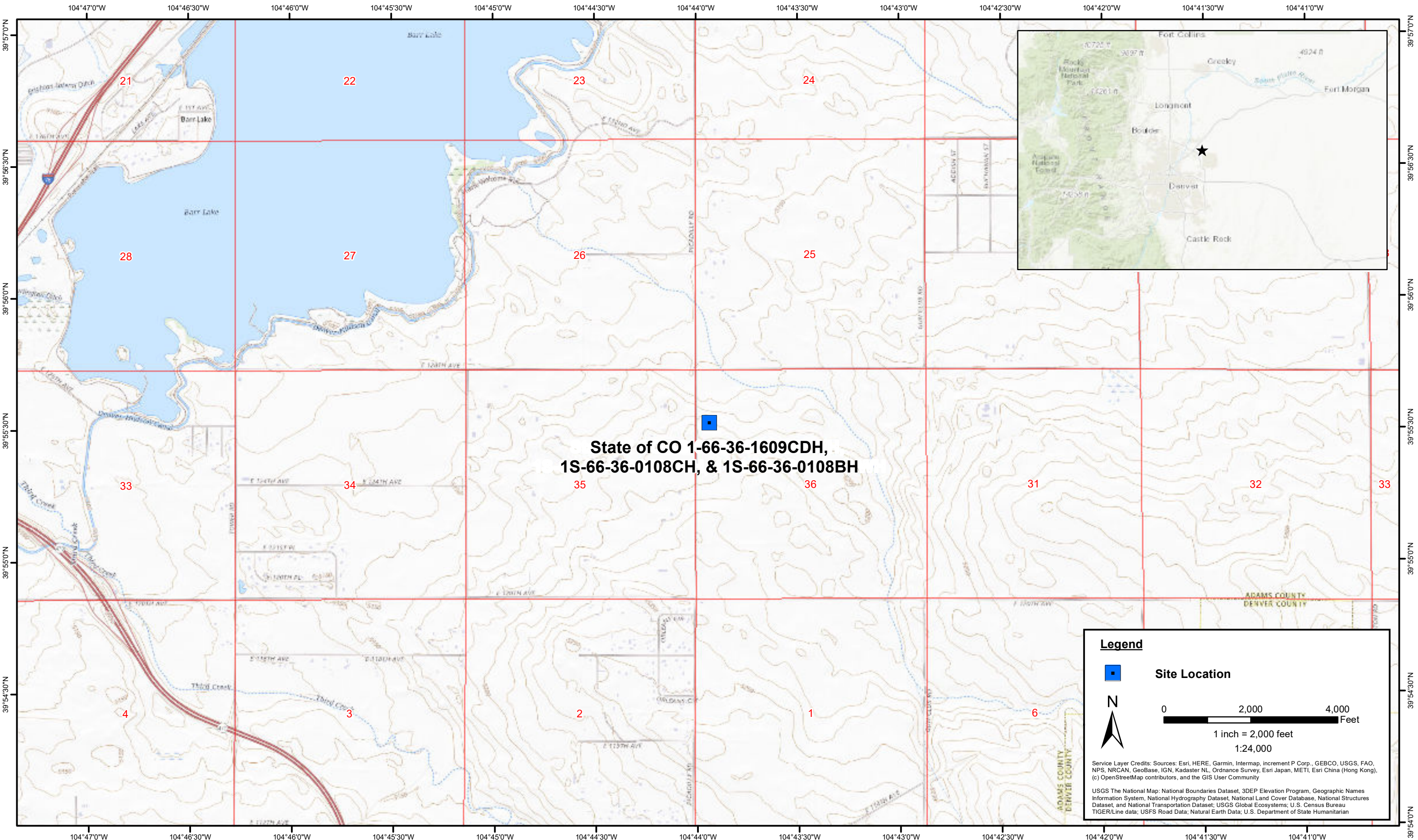
											
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:					
Material:		Volume:		Contents:		Material:		Volume:		Contents:	
Notes/Conditions: Surrounding land use facing East						Notes/Conditions: Surrounding land use facing South					


							
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	Material:	Volume:	Contents:		
Notes/Conditions: Soil screening and sampling locations facing East			Notes/Conditions: Soil screening and sampling locations facing West				

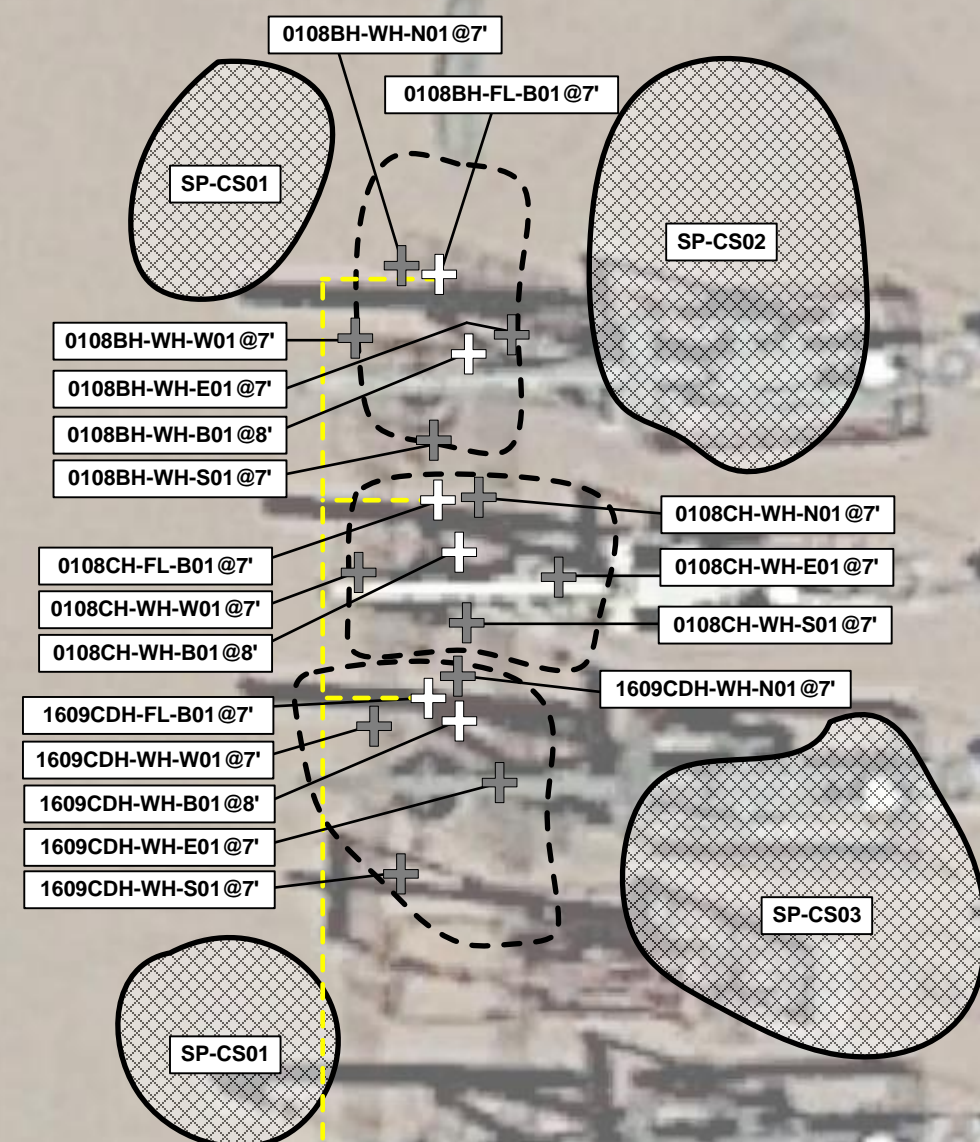
							
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:		Volume:		Contents:		Material:	
Volume:		Contents:		Volume:		Contents:	
Notes/Conditions: Soil screening and sampling locations facing West				Notes/Conditions: Soil screening and sampling locations facing NW			

									
						Equipment ID:		Equipment Type:	
						Material:	Volume:	Contents:	
						Notes/Conditions: Excavation Surface, Facing South			
Equipment ID:		Equipment Type:							
Material:	Volume:	Contents:							
Notes/Conditions:									

FIGURES



<div>DATE: June 2023</div> <div>DESIGNED BY: S. Vogt</div> <div>DRAWN BY: L. Reed</div>	<div> Tasman, Inc. 6855 W. 119th Ave Broomfield, CO 80020</div>	<div>Extraction Oil & Gas, Inc. State of CO 1-66-36-1609CDH, 1S-66-36-0108CH, & 1S-66-36-0108BH NWNW Sec. 36-T1N-R66W Adams County, Colorado</div>	<div>Site Location Map</div>	<div>Figure 1</div>
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Legend

Soil sample location – Field Screened
(Collected via Trimble GPS)

Soil sample location – Below COGCC
Table 915-1 Soil Standards (Collected
via Trimble GPS)

Excavation extent (Collected via
Trimble GPS)

Stockpile location (Collected via
Trimble GPS)

Flowline Location

Notes

Site infrastructure has been removed.

All locations are approximate unless otherwise
noted.

GPS – Global Positioning System

COGCC = Colorado Oil & Gas Conservation
Commission

Soil suitability exceedances not illustrated on
figure. See Table 5.

0 ft.15 ft.30 ft.

Image Source: Google Earth

TABLES

TABLE 1
STATE OF CO 1-66-36-1609CDH,
1S-66-36-0108CH, & 1S-66-36-0108BH
SOIL SAMPLE LOCATIONS
EXTRACTION OIL & GAS, INC.



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
0108BH-FL-B01@7'	7'	06/05/2023	5.7	39.925434	-104.732426	1.1	Y
0108BH-WH-B01@8'	8'	06/05/2023	8.6	39.925418	-104.732418	1.1	Y
0108BH-WH-E01@7'	7'	06/05/2023	7.2	39.925422	-104.732406	1.2	N
0108BH-WH-N01@7'	7'	06/05/2023	4.3	39.925435	-104.732437	1.1	N
0108BH-WH-S01@7'	7'	06/05/2023	6.7	39.925398	-104.732427	1.1	N
0108BH-WH-W01@7'	7'	06/05/2023	6.2	39.925420	-104.732449	1.1	N
0108CH-FL-B01@7'	7'	06/05/2023	1.6	39.925386	-104.732428	1.1	Y
0108CH-WH-B01@8'	8'	06/05/2023	5.9	39.925375	-104.732421	1.1	Y
0108CH-WH-E01@7'	7'	06/05/2023	2.1	39.925370	-104.732393	1.1	N
0108CH-WH-N01@7'	7'	06/05/2023	1.5	39.925387	-104.732416	1.1	N
0108CH-WH-S01@7'	7'	06/05/2023	7.4	39.925360	-104.732419	1.1	N
0108CH-WH-W01@7'	7'	06/05/2023	3.5	39.925370	-104.732449	1.1	N
1609CDH-FL-B01@7'	7'	06/05/2023	0.3	39.925344	-104.732430	1.1	Y
1609CDH-WH-B01@8'	8'	06/05/2023	2.4	39.925339	-104.732421	1.1	Y
1609CDH-WH-E01@7'	7'	06/05/2023	1.4	39.925325	-104.732409	1.4	N
1609CDH-WH-N01@7'	7'	06/05/2023	0.8	39.925346	-104.732421	1.2	N
1609CDH-WH-S01@7'	7'	06/05/2023	2.2	39.925306	-104.732437	1.2	N
1609CDH-WH-W01@7'	7'	06/05/2023	1.2	39.925337	-104.732444	1.2	N
SP-CS01	-	06/05/2023	6.6	39.925454	-104.732488	-	Y
SP-CS02	-	06/05/2023	12.6	39.925434	-104.732345	-	Y
SP-CS03	-	06/05/2023	4.2	39.925299	-104.732324	-	Y

Notes:

PID = Photoionization Detector

ppm = parts per million

HC = Hydrocarbon

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

TABLE 2
STATE OF CO 1-66-36-1609CDH,
1S-66-36-0108CH, & 1S-66-36-0108BH
SOIL ANALYTICAL DATA - VOCs
EXTRACTION OIL & GAS, INC.

Soil Sample Location	Depth	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
COGCC Organic Compounds in Soils ⁽¹⁾			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
COGCC Organic Compounds in Soils ⁽²⁾			1.2	490	5.8	58	2	500			30	27
0108BH-FL-B01@7'	7'	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
0108BH-WH-B01@8'	8'	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
0108CH-FL-B01@7'	7'	06/05/2023	<0.0020	0.0094	<0.0050	<0.010	<0.0038	0.55	<50	<50	<0.0050	<0.0050
0108CH-WH-B01@8'	8'	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
1609CDH-FL-B01@7'	7'	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
1609CDH-WH-B01@8'	8'	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS01	-	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS02	-	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS03	-	06/05/2023	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050

Notes:

VOCs = Volatile Organic Compounds

(1) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = milligrams per kilogram

TVPH - GRO = Total Volatile Petroleum Hydrocarbons - Gasoline Range Organics

TEPH - DRO = Total Extractable Petroleum Hydrocarbons - Diesel Range Organics

TEPH - ORO = Total Extractable Petroleum Hydrocarbons - Oil Range Organics

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

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

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 3
STATE OF CO 1-66-36-1609CDH,
1S-66-36-0108CH, & 1S-66-36-0108BH
SOIL ANALYTICAL DATA - PAHs
EXTRACTION OIL & GAS, INC.

Soil Sample Location	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
COGCC Organic Compounds in Soils ⁽¹⁾			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
COGCC Organic Compounds in Soils ⁽²⁾			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
0108BH-FL-B01@7'	7'	06/05/2023	<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
0108BH-WH-B01@8'	8'	06/05/2023	<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
0108CH-FL-B01@7'	7'	06/05/2023	<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
0108CH-WH-B01@8'	8'	06/05/2023	<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
1609CDH-FL-B01@7'	7'	06/05/2023	<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
1609CDH-WH-B01@8'	8'	06/05/2023	<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
SP-CS01	-	06/05/2023	<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
SP-CS02	-	06/05/2023	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00867	<0.00500	0.0317	0.0303	0.00623
SP-CS03	-	06/05/2023	<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

Notes:

PAHs = Polycyclic Aromatic Hydrocarbons

(1) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations (Effective January 15, 2021)

(2) Standards for soil are taken from COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = milligrams per kilogram

Benzo(a)A = Benzo(a)Anthracene

Benzo(b)F = Benzo(b)Fluoranthene

Benzo(k)F = Benzo(k)Fluoranthene

Benzo(a)P = Benzo(a)Pyrene

D (a,h) A = Dibenzo(a,h)Anthracene

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

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations

TABLE 4
STATE OF CO 1-66-36-1609CDH,
1S-66-36-0108CH, & 1S-66-36-0108BH
SOIL ANALYTICAL DATA - SOIL RECLAMATION
EXTRACTION OIL & GAS, INC.



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
COGCC Soil Suitability for Reclamation⁽¹⁾			6 - 8.3	< 6	< 4	2
0108BH-FL-B01@7'	7'	06/05/2023	7.05	0.361	0.371	0.214
0108BH-WH-B01@8'	8'	06/05/2023	7.48	0.286	0.362	0.125
0108CH-FL-B01@7'	7'	06/05/2023	8.05	0.666	0.391	0.228
0108CH-WH-B01@8'	8'	06/05/2023	8.56	0.159	0.276	0.113
1609CDH-FL-B01@7'	7'	06/05/2023	8.17	0.613	0.413	0.199
1609CDH-WH-B01@8'	8'	06/05/2023	12.0	1.61	4.09	0.0674
SP-CS01	-	06/05/2023	7.91	0.306	0.350	0.262
SP-CS02	-	06/05/2023	7.83	0.506	0.556	0.283
SP-CS03	-	06/05/2023	7.80	0.662	0.532	0.297

Notes:

(1) Standards for soil are taken from COGCC Table 915-1: Soil Suitability for Reclamation (Effective January 15, 2021)

COGCC = Colorado Oil and Gas Conservation Commission

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

mmhos/cm = millimhos per centimeter

mg/L = milligrams per liter

pH = Potential of Hydrogen

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

BOLD = Analytical result is in exceedance of COGCC Table 915-1: Soil Suitability for Reclamation Concentrations

Average background concentration

* Result exceeded the COGCC Table 915-1 standard, but was within site-specific background concentrations

LABORATORY ANALYTICAL DATA

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 19, 2023

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Civitas - State of CO IS-66-36-0108BH WH

Work Order #2306074

Enclosed are the results of analyses for samples received by Summit Scientific on 06/05/23 17:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Sheely".

Scott Sheely For Paul Shrewsbury

President



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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
0108BH-WH-B01@8'	2306074-01	Soil	06/05/23 12:00	06/05/23 17:50
0108BH-FL-B01@7'	2306074-02	Soil	06/05/23 12:10	06/05/23 17:50
0108CH-WH-B01@8'	2306074-03	Soil	06/05/23 12:20	06/05/23 17:50
0108CH-FL-B01@7'	2306074-04	Soil	06/05/23 12:30	06/05/23 17:50
1609CDH-WH-B01@8'	2306074-05	Soil	06/05/23 12:40	06/05/23 17:50
1609CDH-FL-B01@7'	2306074-06	Soil	06/05/23 12:50	06/05/23 17:50
SP-CS01	2306074-07	Soil	06/05/23 13:00	06/05/23 17:50
SP-CS02	2306074-08	Soil	06/05/23 13:05	06/05/23 17:50
SP-CS03	2306074-09	Soil	06/05/23 13:10	06/05/23 17:50

Summit Scientific

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

SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2306074	

Send Data To:		Send Invoice To:	
Client: Civitas/Tasman	Project Manager: Sam Vogt/Jacob Evans	Company:	
Address: 6855 W. 119th Ave	E-Mail: svgot@tasman-geo.com; jevans@civiresources.com	Project Name/Location:	
City/State/Zip: Broomfield, CO 80020		AFE#: P1619CD	
Phone: PM (610) 405-9078	Project Name: State of CO 15-66-36-0108BH WH	HO/Billing Codes: 8306.24	
Sampler Name: SK & DH	Project Number: 15-66-36-0108CH WH, 1-66-36-1609CDH WH	Contact:	

					Preservative				Matrix			Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN	1,2,4 + 1,3,5 TMBs	TPH (GRO, DRO, ORO)	PAHs	pH, EC, SAR	Boron	Metals		
1	0108BH-WH-B01C8'	6-5-23	1200	2			X			X			X	X	X	X	X	X	X		pH, EC, SAR by Saturated paste preparation method Boron by Hot Water Soluble preparation Method Table 915 Metals - As, Ba, Cd, Cu, Pb, Ni, Se, Ag, Zn, Cr VI
2	0108BH-FL-B01C7'		1210																		
3	0108CH-WH-B01C8'		1220																		
4	0108CH-FL-B01C7'		1230																		
5	1609CDH-WH-B01C8'		1240																		
6	1609CDH-FL-B01C7'		1250																		
7	SP-CS01		1300																		
8	SP-CS02		1305																		
9	SP-CS03	↓	1310	↓			↓			↓			↓	↓	↓	↓	↓	↓	↓		
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <i>Deane W</i>	Date/Time: 6/5/23 3:20	Received by: Tasman Lockbox	Date/Time: 6/5/23 3:20	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 6/5/23 1750	Received by: <i>[Signature]</i>	Date/Time: 6/5/23 1750	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 10.1	Corrected Temperature: 5	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2306074Client: Contasfoman

Client Project ID:

State of CO 15-666-36-0108BHHH,
15-666-36-0108CHWH, 1-666-36-
1609CDH WHShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐

Airbill #:

☐ ☐ ☐ ☐ ☐

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽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"/>	on ICE
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 type="checkbox"/>	<input type="checkbox"/>	
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.

Custodian Printed Name

Date/Time

AS

6/5/23



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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108BH-WH-B01@8'
2306074-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/08/23	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: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0410	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0381	95.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	14.4	115 %	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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108BH-WH-B01@8'
2306074-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0267	80.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0285	85.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.125	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

Summit Scientific

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



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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108BH-WH-B01@8'
2306074-01 (Soil)

Summit Scientific

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

Calcium	52.6	0.0583	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	9.05	0.0583	"	"	"	"	"	"
Sodium	8.53	0.0583	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.286	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.7		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.362	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.48		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108BH-FL-B01@7'
2306074-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/08/23	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: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0402	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.2	113 %	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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108BH-FL-B01@7'
2306074-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0256	76.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0268	80.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.214	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108BH-FL-B01@7'
2306074-02 (Soil)

Summit Scientific

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

Calcium	1090	0.0584	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	117	0.0584	"	"	"	"	"	"
Sodium	46.9	0.0584	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.361	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.6		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.371	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.05		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108CH-WH-B01@8'
2306074-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/08/23	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: **06/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0407	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0375	93.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.7	117 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108CH-WH-B01@8'
2306074-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0205	61.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0232	69.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.113	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 12:20**

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

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108CH-WH-B01@8'
2306074-03 (Soil)

Summit Scientific

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

Calcium	821	0.0592	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	69.8	0.0592	"	"	"	"	"	"
Sodium	17.7	0.0592	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.159	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.4		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.276	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.56		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108CH-FL-B01@7'
2306074-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/08/23	EPA 8260B	
Toluene	0.0094	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	0.55	0.50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0428	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0390	97.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	15.7	125 %	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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108CH-FL-B01@7'
2306074-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0236	70.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0255	76.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.228	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 12:30**

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

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

0108CH-FL-B01@7'
2306074-04 (Soil)

Summit Scientific

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

Calcium	852	0.0583	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	103	0.0583	"	"	"	"	"	"
Sodium	77.3	0.0583	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.666	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.7		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.391	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.05		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

1609CDH-WH-B01@8'
2306074-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/08/23	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: **06/05/23 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0421	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0386	96.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.9	127 %	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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

1609CDH-WH-B01@8'
2306074-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0200	60.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0674	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 12:40**

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

1609CDH-WH-B01@8'
2306074-05 (Soil)

Summit Scientific

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

Calcium	395	0.0708	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	0.273	0.0708	"	"	"	"	"	"
Sodium	116	0.0708	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.61	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	70.6		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.09	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	12.0		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

1609CDH-FL-B01@7'
2306074-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/09/23	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: **06/05/23 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0394	98.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0380	95.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.9	128 %	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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

1609CDH-FL-B01@7'
2306074-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0202	60.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0235	70.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.199	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 12:50**

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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

1609CDH-FL-B01@7'
2306074-06 (Soil)

Summit Scientific

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

Calcium	970	0.0598	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	66.6	0.0598	"	"	"	"	"	"
Sodium	73.1	0.0598	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.613	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.7		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.413	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS01
2306074-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/09/23	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: **06/05/23 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0395	98.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0386	96.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0377	94.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	16.4	131 %	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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS01
2306074-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0196	58.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0193	57.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.262	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 13:00**

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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS01
2306074-07 (Soil)

Summit Scientific

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

Calcium	1000	0.0572	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	91.3	0.0572	"	"	"	"	"	"
Sodium	37.7	0.0572	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.306	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.5		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.350	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.91		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS02
2306074-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/09/23	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: **06/05/23 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0401	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	97.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0379	94.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.8	127 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS02
2306074-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/08/23	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	0.00867	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00623	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0317	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0303	0.00500	"	"	"	"	"	"	

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0213	63.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0182	54.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.283	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 13:05**

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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS02
2306074-08 (Soil)

Summit Scientific

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

Calcium	1170	0.0649	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	79.0	0.0649	"	"	"	"	"	"
Sodium	66.3	0.0649	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.506	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.0		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.556	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.83		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

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Broomfield CO, 80020

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS03
2306074-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGF0186	06/06/23	06/09/23	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: **06/05/23 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0407	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0374	93.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGF0192	06/06/23	06/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	16.3	131 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
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Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS03
2306074-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGF0272	06/08/23	06/09/23	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: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0206	61.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0192	57.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.297	0.0100	mg/L	1	BGF0406	06/12/23	06/16/23	EPA 6020B	

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

Date Sampled: **06/05/23 13:10**

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 - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

SP-CS03
2306074-09 (Soil)

Summit Scientific

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

Calcium	1320	0.0577	mg/L dry	1	BGF0402	06/11/23	06/18/23	EPA 6020B
Magnesium	104	0.0577	"	"	"	"	"	"
Sodium	92.9	0.0577	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.662	0.00100	units	1	BGF0655	06/19/23	06/19/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.6		%	1	BGF0404	06/12/23	06/12/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.532	0.0100	mmhos/cm	1	BGF0410	06/12/23	06/12/23	EPA 120.1	

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

Date Sampled: **06/05/23 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.80		pH Units	1	BGF0409	06/12/23	06/12/23	EPA 9045D	

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGF0186 - EPA 5030 Soil MS

Blank (BGF0186-BLK1)

Prepared: 06/06/23 Analyzed: 06/08/23

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	0.0390		"	0.0400		97.6	50-150			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.4	50-150			

LCS (BGF0186-BS1)

Prepared: 06/06/23 Analyzed: 06/08/23

Benzene	0.118	0.0020	mg/kg	0.125		94.7	70-130			
Toluene	0.123	0.0050	"	0.125		98.1	70-130			
Ethylbenzene	0.140	0.0050	"	0.125		112	70-130			
m,p-Xylene	0.286	0.010	"	0.250		114	70-130			
o-Xylene	0.134	0.0050	"	0.125		107	70-130			
1,2,4-Trimethylbenzene	0.155	0.0050	"	0.125		124	70-130			
1,3,5-Trimethylbenzene	0.160	0.0050	"	0.125		128	70-130			
Naphthalene	0.158	0.0038	"	0.125		126	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.7	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	50-150			

Matrix Spike (BGF0186-MS1)

Source: 2306070-05

Prepared: 06/06/23 Analyzed: 06/08/23

Benzene	0.118	0.0020	mg/kg	0.125	ND	94.0	70-130			
Toluene	0.124	0.0050	"	0.125	ND	98.9	70-130			
Ethylbenzene	0.140	0.0050	"	0.125	ND	112	70-130			
m,p-Xylene	0.285	0.010	"	0.250	ND	114	70-130			
o-Xylene	0.135	0.0050	"	0.125	ND	108	70-130			
1,2,4-Trimethylbenzene	0.159	0.0050	"	0.125	ND	127	70-130			
1,3,5-Trimethylbenzene	0.163	0.0050	"	0.125	ND	130	70-130			
Naphthalene	0.179	0.0038	"	0.125	ND	143	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	50-150			

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6855 W. 119th Ave.
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Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BGF0186 - EPA 5030 Soil MS

Matrix Spike Dup (BGF0186-MSD1)	Source: 2306070-05			Prepared: 06/06/23 Analyzed: 06/08/23						
Benzene	0.114	0.0020	mg/kg	0.125	ND	91.5	70-130	2.72	30	
Toluene	0.118	0.0050	"	0.125	ND	94.7	70-130	4.26	30	
Ethylbenzene	0.138	0.0050	"	0.125	ND	110	70-130	2.01	30	
m,p-Xylene	0.282	0.010	"	0.250	ND	113	70-130	0.858	30	
o-Xylene	0.132	0.0050	"	0.125	ND	105	70-130	2.61	30	
1,2,4-Trimethylbenzene	0.153	0.0050	"	0.125	ND	123	70-130	3.37	30	
1,3,5-Trimethylbenzene	0.157	0.0050	"	0.125	ND	126	70-130	3.46	30	
Naphthalene	0.178	0.0038	"	0.125	ND	142	70-130	0.522	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0400		98.5	50-150			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.6	50-150			

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGF0192 - EPA 3550A

Blank (BGF0192-BLK1)

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	15.8		"	12.5		126	30-150			

LCS (BGF0192-BS1)

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	563	50	mg/kg	500		113	70-130			
Surrogate: o-Terphenyl	15.6		"	12.5		125	30-150			

Matrix Spike (BGF0192-MS1)

Source: 2306070-05

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	517	50	mg/kg	500	11.7	101	70-130			
Surrogate: o-Terphenyl	14.4		"	12.5		115	30-150			

Matrix Spike Dup (BGF0192-MSD1)

Source: 2306070-05

Prepared: 06/06/23 Analyzed: 06/07/23

C10-C28 (DRO)	557	50	mg/kg	500	11.7	109	70-130	7.40	20	
Surrogate: o-Terphenyl	14.4		"	12.5		116	30-150			

Summit Scientific

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGF0272 - EPA 5030 Soil MS

Blank (BGF0272-BLK1)

Prepared & Analyzed: 06/08/23

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	0.0385	"	0.0333	115	40-150
Surrogate: Fluoranthene-d10	0.0361	"	0.0333	108	40-150

LCS (BGF0272-BS1)

Prepared & Analyzed: 06/08/23

Acenaphthene	0.0292	0.00500	mg/kg	0.0333	87.5	31-137
Anthracene	0.0287	0.00500	"	0.0333	86.1	30-120
Benzo (a) anthracene	0.0141	0.00500	"	0.0333	42.2	30-120
Benzo (a) pyrene	0.0286	0.00500	"	0.0333	85.9	30-120
Benzo (b) fluoranthene	0.0321	0.00500	"	0.0333	96.2	30-120
Benzo (k) fluoranthene	0.0286	0.00500	"	0.0333	85.7	30-120
Chrysene	0.0232	0.00500	"	0.0333	69.5	30-120
Dibenz (a,h) anthracene	0.0301	0.00500	"	0.0333	90.3	30-120
Fluoranthene	0.0280	0.00500	"	0.0333	84.1	30-120
Fluorene	0.0278	0.00500	"	0.0333	83.5	30-120
Indeno (1,2,3-cd) pyrene	0.0309	0.00500	"	0.0333	92.7	30-120
Pyrene	0.0329	0.00500	"	0.0333	98.6	35-142
1-Methylnaphthalene	0.0164	0.00500	"	0.0333	49.2	35-142
2-Methylnaphthalene	0.0237	0.00500	"	0.0333	71.2	35-142

Surrogate: 2-Methylnaphthalene-d10	0.0252	"	0.0333	75.5	40-150
Surrogate: Fluoranthene-d10	0.0285	"	0.0333	85.5	40-150

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGF0272 - EPA 5030 Soil MS

Matrix Spike (BGF0272-MS1)

Source: 2305676-03

Prepared & Analyzed: 06/08/23

Acenaphthene	0.0217	0.00500	mg/kg	0.0333	ND	65.1	31-137			
Anthracene	0.0227	0.00500	"	0.0333	ND	68.1	30-120			
Benzo (a) anthracene	0.0206	0.00500	"	0.0333	ND	61.8	30-120			
Benzo (a) pyrene	0.0180	0.00500	"	0.0333	ND	53.9	30-120			
Benzo (b) fluoranthene	0.0165	0.00500	"	0.0333	ND	49.4	30-120			
Benzo (k) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.5	30-120			
Chrysene	0.0180	0.00500	"	0.0333	ND	54.1	30-120			
Dibenz (a,h) anthracene	0.0154	0.00500	"	0.0333	ND	46.3	30-120			
Fluoranthene	0.0228	0.00500	"	0.0333	ND	68.3	30-120			
Fluorene	0.0219	0.00500	"	0.0333	ND	65.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0148	0.00500	"	0.0333	ND	44.3	30-120			
Pyrene	0.0234	0.00500	"	0.0333	ND	70.3	35-142			
1-Methylnaphthalene	0.0143	0.00500	"	0.0333	ND	43.0	15-130			
2-Methylnaphthalene	0.0223	0.00500	"	0.0333	ND	66.8	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0230		"	0.0333		69.0	40-150			
Surrogate: Fluoranthene-d10	0.0259		"	0.0333		77.7	40-150			

Matrix Spike Dup (BGF0272-MSD1)

Source: 2305676-03

Prepared & Analyzed: 06/08/23

Acenaphthene	0.0195	0.00500	mg/kg	0.0333	ND	58.5	31-137	10.6	30	
Anthracene	0.0202	0.00500	"	0.0333	ND	60.7	30-120	11.5	30	
Benzo (a) anthracene	0.0199	0.00500	"	0.0333	ND	59.6	30-120	3.64	30	
Benzo (a) pyrene	0.0185	0.00500	"	0.0333	ND	55.6	30-120	3.18	30	
Benzo (b) fluoranthene	0.0157	0.00500	"	0.0333	ND	47.2	30-120	4.57	30	
Benzo (k) fluoranthene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	10.1	30	
Chrysene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	9.81	30	
Dibenz (a,h) anthracene	0.0135	0.00500	"	0.0333	ND	40.5	30-120	13.4	30	
Fluoranthene	0.0200	0.00500	"	0.0333	ND	59.9	30-120	13.2	30	
Fluorene	0.0197	0.00500	"	0.0333	ND	59.1	30-120	10.4	30	
Indeno (1,2,3-cd) pyrene	0.0161	0.00500	"	0.0333	ND	48.4	30-120	8.86	30	
Pyrene	0.0211	0.00500	"	0.0333	ND	63.2	35-142	10.7	30	
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.7	15-130	14.4	50	
2-Methylnaphthalene	0.0203	0.00500	"	0.0333	ND	60.9	15-130	9.38	50	
Surrogate: 2-Methylnaphthalene-d10	0.0214		"	0.0333		64.3	40-150			
Surrogate: Fluoranthene-d10	0.0230		"	0.0333		69.1	40-150			

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

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

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

Batch BGF0406 - EPA 3050B

Blank (BGF0406-BLK1)

Prepared: 06/12/23 Analyzed: 06/16/23

Boron ND 0.0100 mg/L

LCS (BGF0406-BS1)

Prepared: 06/12/23 Analyzed: 06/16/23

Boron 5.05 0.0100 mg/L 5.00 101 80-120

Duplicate (BGF0406-DUP1)

Source: 2306074-01

Prepared: 06/12/23 Analyzed: 06/16/23

Boron 0.115 0.0100 mg/L 0.125 8.48 20

Matrix Spike (BGF0406-MS1)

Source: 2306074-01

Prepared: 06/12/23 Analyzed: 06/16/23

Boron 4.89 0.0100 mg/L 5.00 0.125 95.3 75-125

Matrix Spike Dup (BGF0406-MSD1)

Source: 2306074-01

Prepared: 06/12/23 Analyzed: 06/16/23

Boron 4.98 0.0100 mg/L 5.00 0.125 97.2 75-125 1.89 25

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Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

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

Summit Scientific

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

Batch BGF0402 - General Preparation

Blank (BGF0402-BLK1)

Prepared: 06/11/23 Analyzed: 06/18/23

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

LCS (BGF0402-BS1)

Prepared: 06/11/23 Analyzed: 06/18/23

Calcium	5.65	0.0500	mg/L wet	5.00	113	70-130
Magnesium	5.60	0.0500	"	5.00	112	70-130
Sodium	5.52	0.0500	"	5.00	110	70-130

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Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

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

Summit Scientific

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

Batch BGF0404 - General Preparation

Duplicate (BGF0404-DUP1)		Source: 2306070-05			Prepared & Analyzed: 06/12/23					
% Solids	81.0		%		81.3			0.387	20	

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Broomfield CO, 80020

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

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

Summit Scientific

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

Batch BGF0410 - General Preparation

Blank (BGF0410-BLK1)

Prepared & Analyzed: 06/12/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGF0410-BS1)

Prepared & Analyzed: 06/12/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BGF0410-DUP1)

Source: 2306070-05

Prepared & Analyzed: 06/12/23

Specific Conductance (EC) 2.00 0.0100 mmhos/cm 2.04 1.68 20

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

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

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

Summit Scientific

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

Batch BGF0409 - General Preparation

LCS (BGF0409-BS1)

Prepared & Analyzed: 06/12/23

pH	9.01	pH Units	9.18	98.1	95-105
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Duplicate (BGF0409-DUP1)

Source: 2306070-05

Prepared & Analyzed: 06/12/23

pH	7.88	pH Units	7.84	0.509	20
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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - State of CO IS-66-36-0108BH WH

Project Number: [none]
Project Manager: Sam Vogt

Reported:
06/19/23 14:54

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
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