

**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**



<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	

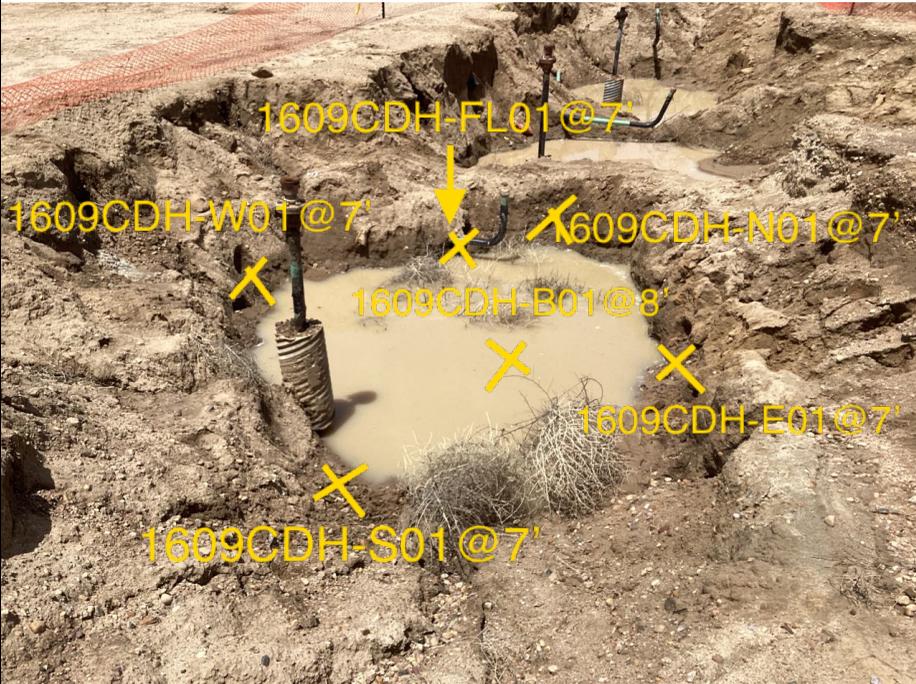
**Notes/Conditions:** Surrounding land use facing North

<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	

**Notes/Conditions:** Surrounding land use facing West

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

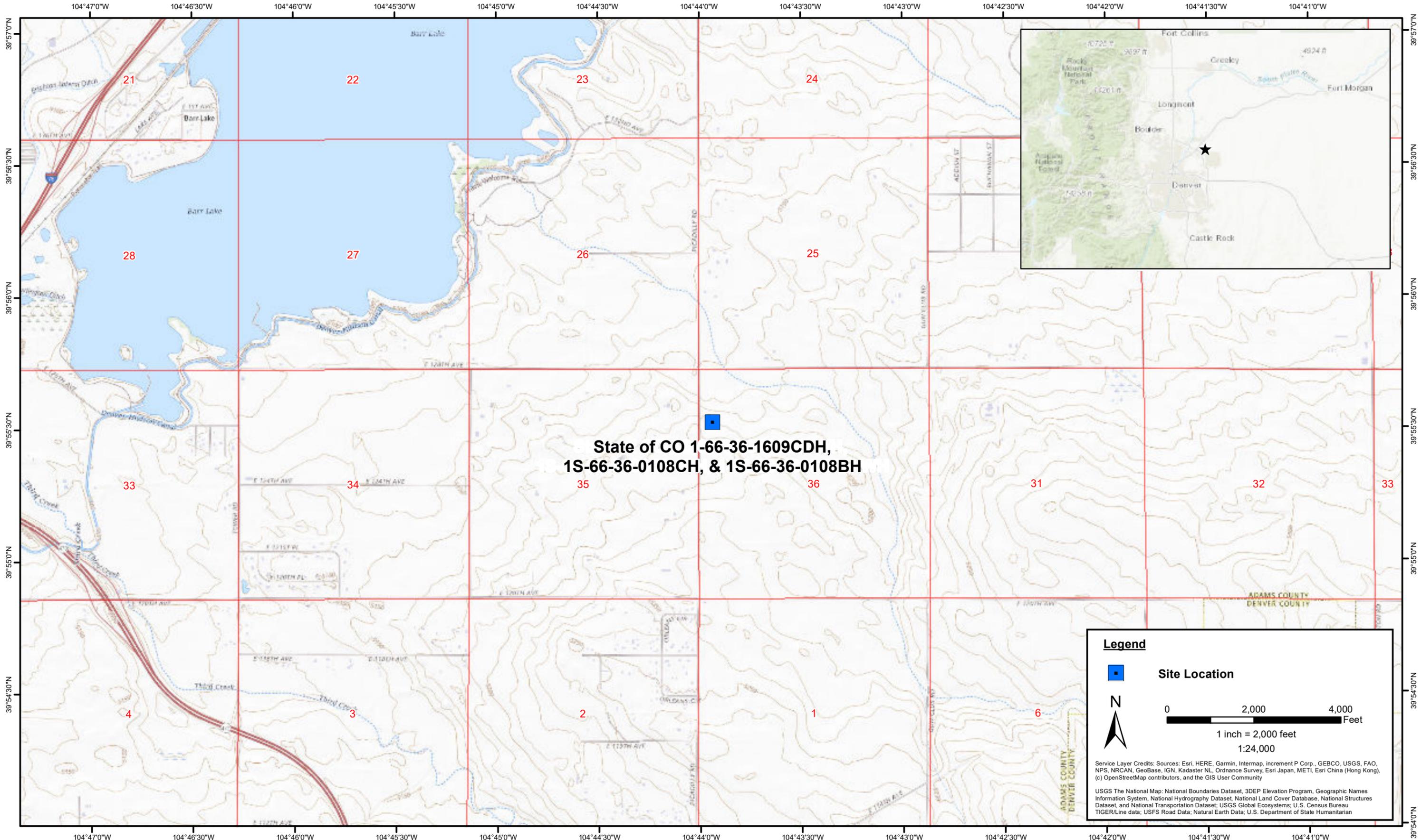
							
<b>Equipment ID:</b>		<b>Equipment Type:</b>		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Soil screening and sampling locations facing East				<b>Notes/Conditions:</b> Soil screening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

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



<b>Equipment ID:</b>		<b>Equipment Type:</b>		<b>Equipment ID:</b>		<b>Equipment Type:</b>	
<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>		<b>Material:</b>	<b>Volume:</b>	<b>Contents:</b>	
<b>Notes/Conditions:</b> Excavation Surface. Facing South				<b>Notes/Conditions:</b>			

# FIGURES



DATE:	June 2023
DESIGNED BY:	S. Vogt
DRAWN BY:	L. Reed

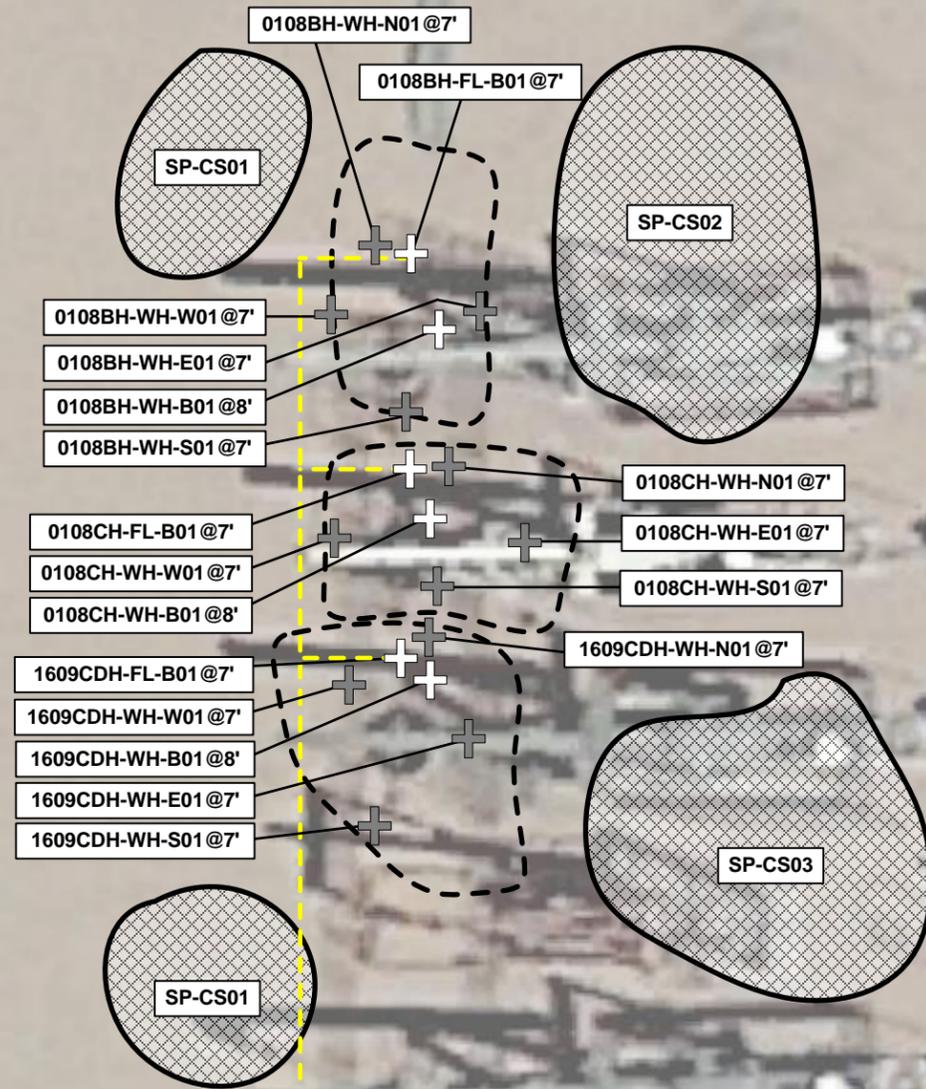


**Tasman, Inc.**  
6855 W. 119th Ave  
Broomfield, CO 80020

**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

Site Location Map

Figure  
1



**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.



Image Source: Google Earth

DATE:	June 20, 2023
DESIGNED BY:	S. Vogt
DRAWN BY:	S. Vogt

**TASMAN**  
 Tasman, Inc.  
 6855 W. 119th Avenue  
 Broomfield, Colorado 80020

**Extraction Oil & Gas, Inc.**  
**State of CO 1-66-36-1609CDH,**  
**1S-66-36-0108CH, & 1S-66-36-0108BH**  
 NWNW Sec. 36-T1S-R66W  
 Adams County, Colorado

Soil Sample Location Map

FIGURE  
2

# 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)
<b>COGCC Organic Compounds in Soils <sup>(1)</sup></b>			<b>0.0026</b>	<b>0.69</b>	<b>0.78</b>	<b>9.9</b>	<b>0.0038</b>	<b>500</b>			<b>0.0081</b>	<b>0.0087</b>
<b>COGCC Organic Compounds in Soils <sup>(2)</sup></b>			<b>1.2</b>	<b>490</b>	<b>5.8</b>	<b>58</b>	<b>2</b>	<b>500</b>			<b>30</b>	<b>27</b>
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 <sup>(1)</sup>			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 <sup>(2)</sup>			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	<b>0.0317</b>	<b>0.0303</b>	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)
<b>COGCC Soil Suitability for Reclamation<sup>(1)</sup></b>			<b>6 - 8.3</b>	<b>&lt; 6</b>	<b>&lt; 4</b>	<b>2</b>
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	<b>8.56</b>	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	<b>12.0</b>	1.61	<b>4.09</b>	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,



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
<b>2306074</b>	

		<b>Send Data To:</b>	<b>Send Invoice To:</b>
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#: <b>PI619CD</b>
Phone: PM (610) 405-9078	Project Name: <b>State of CO 15-66-36-0108BH WH</b>		HO/Billing Codes: <b>8306.24</b>
Sampler Name: <b>SK &amp; DH</b>	Project Number: <b>15-66-36-0108CH WH, 1-66-36-1609CDH WH</b>		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 TMS	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		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											X	X	X	X	X	X		
3	0108CH-WH-B01c8'		1220											X	X	X	X	X	X		
4	0108CH-FL-B01c7'		1230											X	X	X	X	X	X		
5	1609CDH-WH-B01c8'		1240											X	X	X	X	X	X		
6	1609CDH-FL-B01c7'		1250											X	X	X	X	X	X		
7	SP-CS01		1300											X	X	X	X	X	X		
8	SP-CS02		1305											X	X	X	X	X	X		
9	SP-CS03		1310											X	X	X	X	X	X		
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <b>Deann Wald</b>	Date/Time: <b>6/1/23 3:20</b>	Received by: <b>Tasman Lockbox</b>	Date/Time: <b>6/5/23 3:20</b>	TAT Business Days	Field DO	<b>Notes:</b>
				Same Day	Field EC	
Relinquished by: <b>Tasman Lockbox</b>	Date/Time: <b>6/2/23 1750</b>	Received by: <b>[Signature]</b>	Date/Time: <b>6/2/23 1750</b>	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard <input checked="" type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: <b>10.1</b>	Corrected Temperature: <b>5</b>	IR gun #:		HNO3 lot #:		

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2306074

Client: Contasfasman Client Project ID: State of CO 15-666-36-0108BHWI,  
15-666-36-0108CHWH, 1-666-36-  
Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other  Airbill #: 1609CDH WH

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

Temp (°C)  Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ICE
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? 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)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

AS  
Custodian Printed Name

6/5/23  
Date/Time



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		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 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
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		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 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
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 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 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.125</b>	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 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

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

**Summit Scientific**

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	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 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 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.214</b>	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 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

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

**Summit Scientific**

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	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 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 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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
<b>Boron</b>	<b>0.113</b>	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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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**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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	
<b>Toluene</b>	<b>0.0094</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.55</b>	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**

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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
<b>Boron</b>	<b>0.228</b>	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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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**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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	

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**

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

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

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 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	15.9	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

**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
<b>Boron</b>	<b>0.0674</b>	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**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	15.9	128 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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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

**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
<b>Boron</b>	<b>0.199</b>	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**

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

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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
<b>Boron</b>	<b>0.262</b>	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**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	15.8	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

**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	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.00867</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.00623</b>	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0317</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0303</b>	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
<b>Boron</b>	<b>0.283</b>	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**

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

**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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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**

**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
<b>Boron</b>	<b>0.297</b>	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**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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	

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

### 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 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			

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

**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 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			

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

**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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -Terphenyl	14.4		"	12.5		116	30-150			

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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**

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

**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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0385</i>		<i>"</i>	<i>0.0333</i>		<i>115</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0361</i>		<i>"</i>	<i>0.0333</i>		<i>108</i>	<i>40-150</i>			

**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			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0252</i>		<i>"</i>	<i>0.0333</i>		<i>75.5</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0285</i>		<i>"</i>	<i>0.0333</i>		<i>85.5</i>	<i>40-150</i>			

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

**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

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

**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 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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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 - Quality Control**

**Summit Scientific**

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

**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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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

**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 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

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

**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 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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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

### 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