

Wandell 11-7, 13-7, 2-0-7, 23-7

SWNW Sec. 7-T2N-R67W

API #'s: 11-7 WH (123-21257), 13-7 WH (123-21258), 2-0-7 WH
(123-31220), 23-7 WH (123-22397)

Facility ID's: 473085, 473086, 473087, 473088, 473089

Remediation Project #: 31104

Wellhead and Flowline Decommissioning Data Package

February 2024

Prepared by Tasman, Inc.



On behalf of Crestone Peak Resources Operating, LLC



FIELD NOTES AND PHOTO LOG

SITE NAME: Wandell 11-7, 13-7, 23-7, 2-0-7								DATE: 2/5/2024	REM. PROJECT #: 31104	WEATHER: 45 F, Sunny
SITE DIRECTIONS: Colorado Blvd & Booth Dr, E 0.1, NE Into								CLIENT: Crestone Peak Resources Operating, LLC		
LEGALS AND LAT/LONG: 40.155436, -104.939203								TASMAN PERSONNEL: Logan Molson		
SOIL TYPES: SM - silty sand								SURFACE GRADIENT: Northeast		
SURROUNDING LAND USE: Rangeland								CROP:		
SOIL SAMPLING								FACILITY INFRASTRUCTURE		
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo? (Y/N)	USCS	Lab (Y/N)	EQUIPMENT	Quantity	
								Above Ground Storage Tank (AST)		
2/5/2024 13:00	11-7-WH-B01@6'	0.7	No Staining	No Odor	Y	SM	Y	Produced Water Vessel (PWV)		
2/5/2024 13:02	11-7-WH-N01@5'	1.6	No Staining	No Odor	Y	SM	N	Separator (SEP)		
2/5/2024 13:04	11-7-WH-S01@5'	2.1	No Staining	No Odor	Y	SM	N	Emission Control Device (ECD)		
2/5/2024 13:06	11-7-WH-E01@5'	0.9	No Staining	No Odor	Y	SM	N	Dump Line (DL)		
2/5/2024 13:08	11-7-WH-W01@5'	1.1	No Staining	No Odor	Y	SM	N	Wellhead (WH)	4	
2/5/2024 13:10	11-7-FL-B01@4'	1.4	No Staining	No Odor	Y	SM	Y	Flowline (FL)	4	
2/5/2024 13:12	SP-CS01	0.8	No Staining	No Odor	N	SM	Y	FL Method of Closure	Abandoned in Place	
2/5/2024 13:14	2-0-7-WH-B01@6'	3.6	No Staining	No Odor	Y	SM	Y	FL Footage Removed		
2/5/2024 13:16	2-0-7-WH-N01@5'	3.7	No Staining	No Odor	Y	SM	N	Footaged Abandoned in Place	3700	
2/5/2024 13:18	2-0-7-WH-S01@5'	1.9	No Staining	No Odor	Y	SM	N	Other:		
2/5/2024 13:20	2-0-7-WH-E01@5'	2.2	No Staining	No Odor	Y	SM	N	Soil Loads Removed		
2/5/2024 13:22	2-0-7-WH-W01@5'	1.4	No Staining	No Odor	Y	SM	N	IMPACTED SOIL IDENTIFIED? Yes		
2/5/2024 13:24	2-0-7-FL-B01@4'	52.5	No Staining	Slight HC Od	Y	SM	Y	ESTIMATED VOLUME OF IMPACTS: Ongoing Excavation		
2/5/2024 13:26	SP-CS02	0.6	No Staining	No Odor	N	SM	Y	Date	Number	CY
2/5/2024 13:28	13-7-WH-B01@6'	1.7	No Staining	No Odor	Y	SM	Y			
2/5/2024 13:30	13-7-WH-N01@5'	3.5	No Staining	No Odor	Y	SM	N			
2/5/2024 13:32	13-7-WH-S01@5'	3.5	No Staining	No Odor	Y	SM	N			
2/5/2024 13:34	13-7-WH-E01@5'	2.5	No Staining	No Odor	Y	SM	N			
2/5/2024 13:36	13-7-WH-W01@5'	2.7	No Staining	No Odor	Y	SM	N	Total Removed	0	0
2/5/2024 13:38	13-7-FL-B01@4'	183.6	No Staining	HC Odor	Y	SM	Y	Disposal Facility:		
2/5/2024 13:40	SP-CS03	0.4	No Staining	No Odor	N	SM	Y	Groundwater Recovery		
2/5/2024 13:42	23-7-WH-B01@6'	1.7	No Staining	No Odor	Y	SM	Y	DATE GW ENCOUNTERED:	DEPTH:	
2/5/2024 13:44	23-7-WH-N01@5'	1.4	No Staining	No Odor	Y	SM	N	GROUNDWATER IN CONTACT WITH IMPACTED SOIL?		
2/5/2024 13:46	23-7-WH-S01@5'	1.0	No Staining	No Odor	Y	SM	N			
2/5/2024 13:48	23-7-WH-E01@5'	1.7	No Staining	No Odor	Y	SM	N	LNAPL OR SHEEN OBSERVED ON GW?		
GROUNDWATER SAMPLING								Date	BBLS	
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
								Total Removed	0	
								Disposal Facility:		

Decommissioning Form

Tasman Inc.



SITE NAME: Wandell 11-7, 13-7, 23-7, 2-0-7								DATE: 2/5/2024	REM. PROJECT #: 31104	WEATHER: 45 F, Sunny
SITE DIRECTIONS: Colorado Blvd & Booth Dr, E 0.1, NE Into								CLIENT: Crestone Peak Resources Operating, LLC		
LEGALS AND LAT/LONG: 40.155436, -104.939203								TASMAN PERSONNEL: Logan Molson		
SOIL TYPES: SM - silty sand								SURFACE GRADIENT: Northeast		
SURROUNDING LAND USE: Rangeland								CROP:		
SOIL SAMPLING								FACILITY INFRASTRUCTURE		
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo? (Y/N)	USCS	Lab (Y/N)	EQUIPMENT		Quantity
								Above Ground Storage Tank (AST)		
2/5/2024 13:50	23-7-WH-W01 @5'	1.9	No Staining	No Odor	Y	SM	N	Produced Water Vessel (PWV)		
2/5/2024 13:52	23-7-FL-B01 @4'	34.8	No Staining	No Odor	Y	SM	Y	Separator (SEP)		
2/5/2024 13:54	SP-CS04	2.6	No Staining	No Odor	N	SM	Y	Emission Control Device (ECD)		
2/5/2024 15:30	FL-B02 @4'	4.1	No Staining	No Odor	Y	SM	Y	Dump Line (DL)		
								Wellhead (WH)		4
								Flowline (FL)		4
								FL Method of Closure		Abandoned in Place
								FL Footage Removed		
								Footaged Abandoned in Place		3700
								Other:		
Soil Loads Removed										
								IMPACTED SOIL IDENTIFIED? Yes		
								ESTIMATED VOLUME OF IMPACTS: Ongoing Excavation		
								Date	Number	CY
								Total Removed		0 0
								Disposal Facility:		
Groundwater Recovery										
								DATE GW ENCOUNTERED:		DEPTH:
								GROUNDWATER IN CONTACT WITH IMPACTED SOIL?		
								LNAPL OR SHEEN OBSERVED ON GW?		
GROUNDWATER SAMPLING								Date	BBLS	
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
								Total Removed		0
								Disposal Facility:		



Photographic Log



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Surrounding Land Use			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Surrounding Land Use			



Photographic Log



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Surrounding Land Use			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample and screening locations			



Photographic Log



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample and screening locations			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample location			



Photographic Log

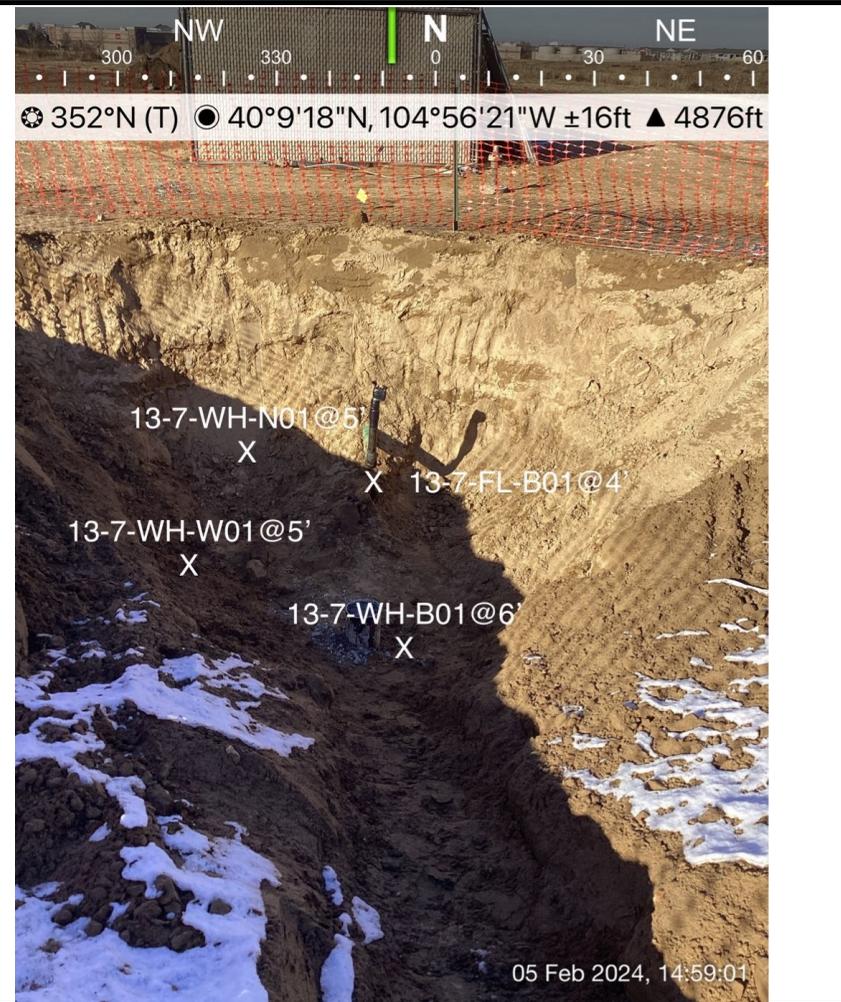
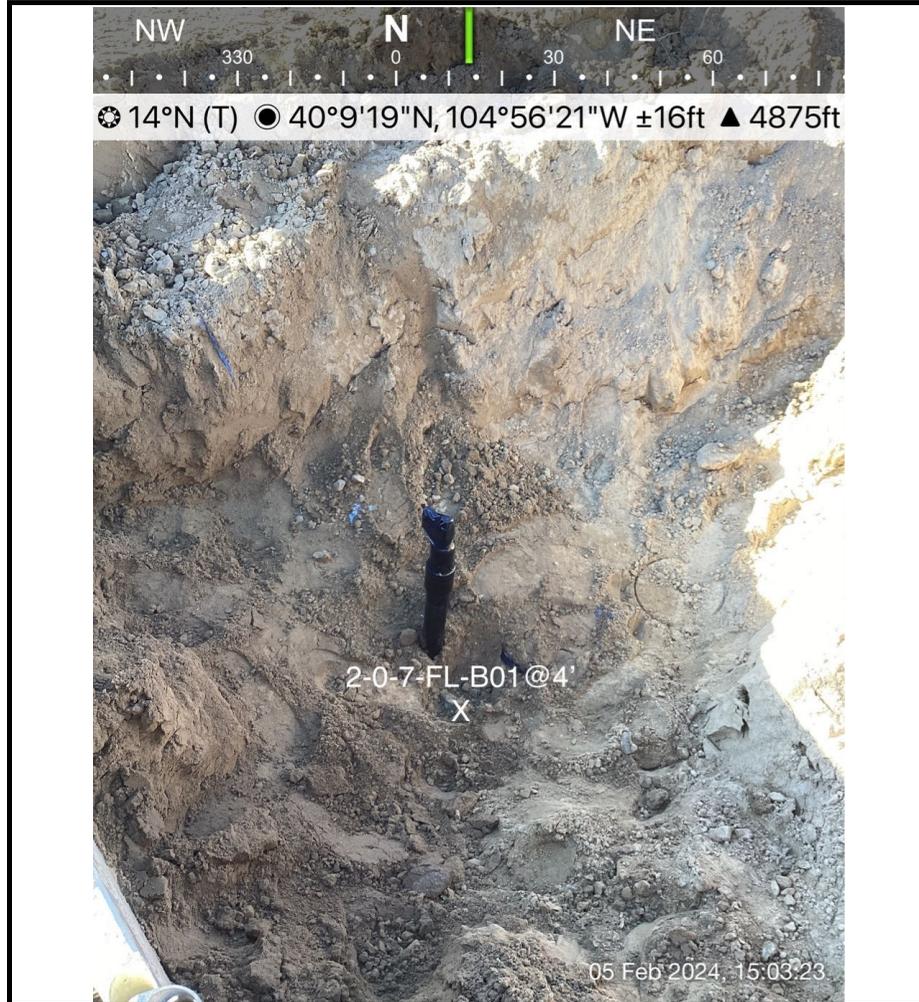


Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample and screening locations			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil screening location			



Photographic Log

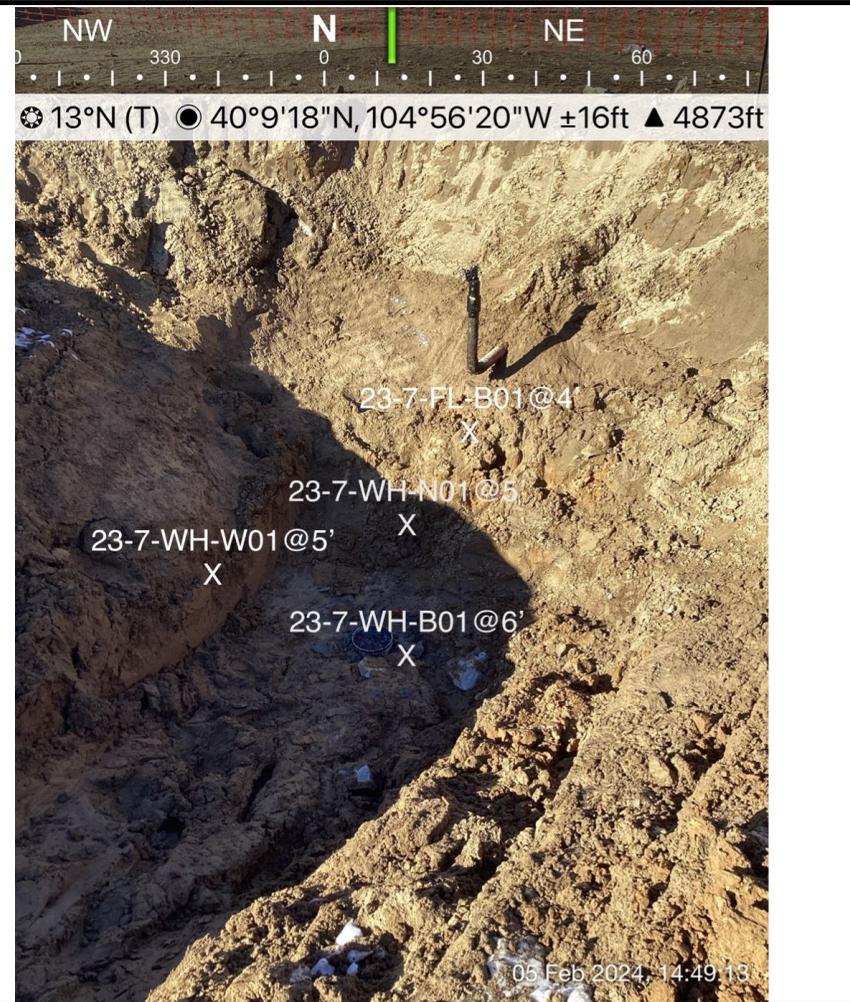
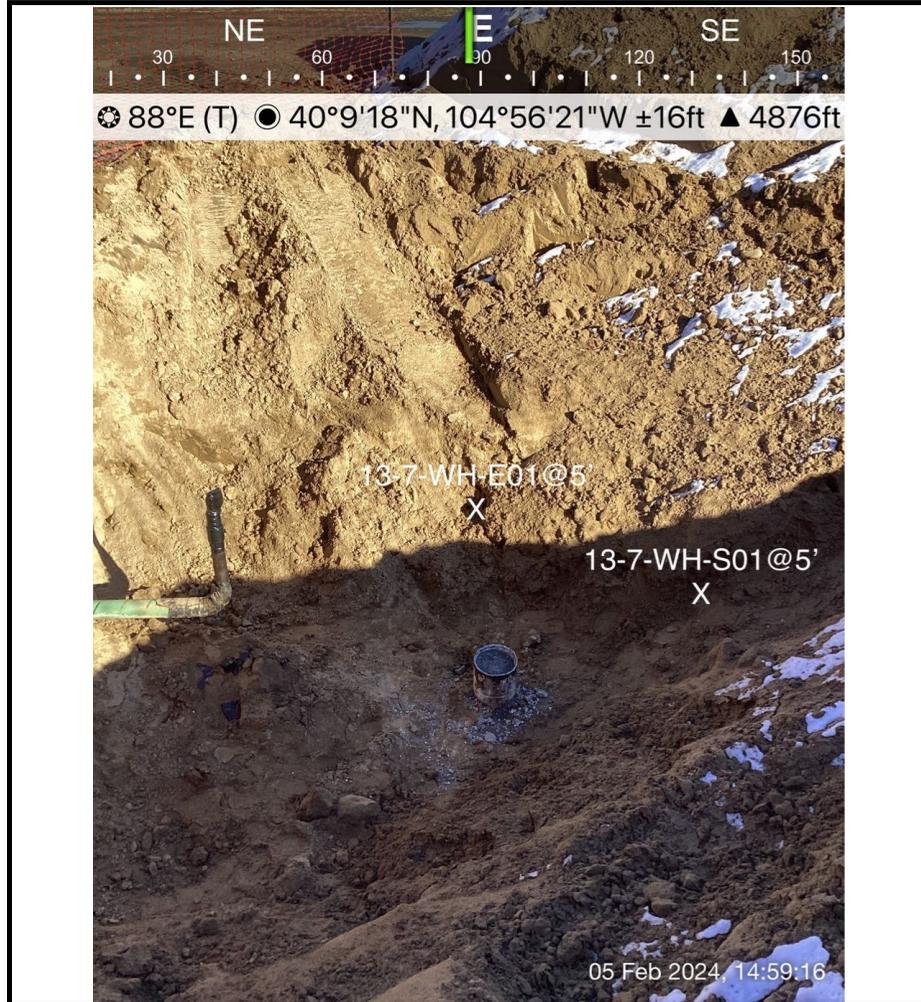


Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample location			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample and screening locations			



Photographic Log

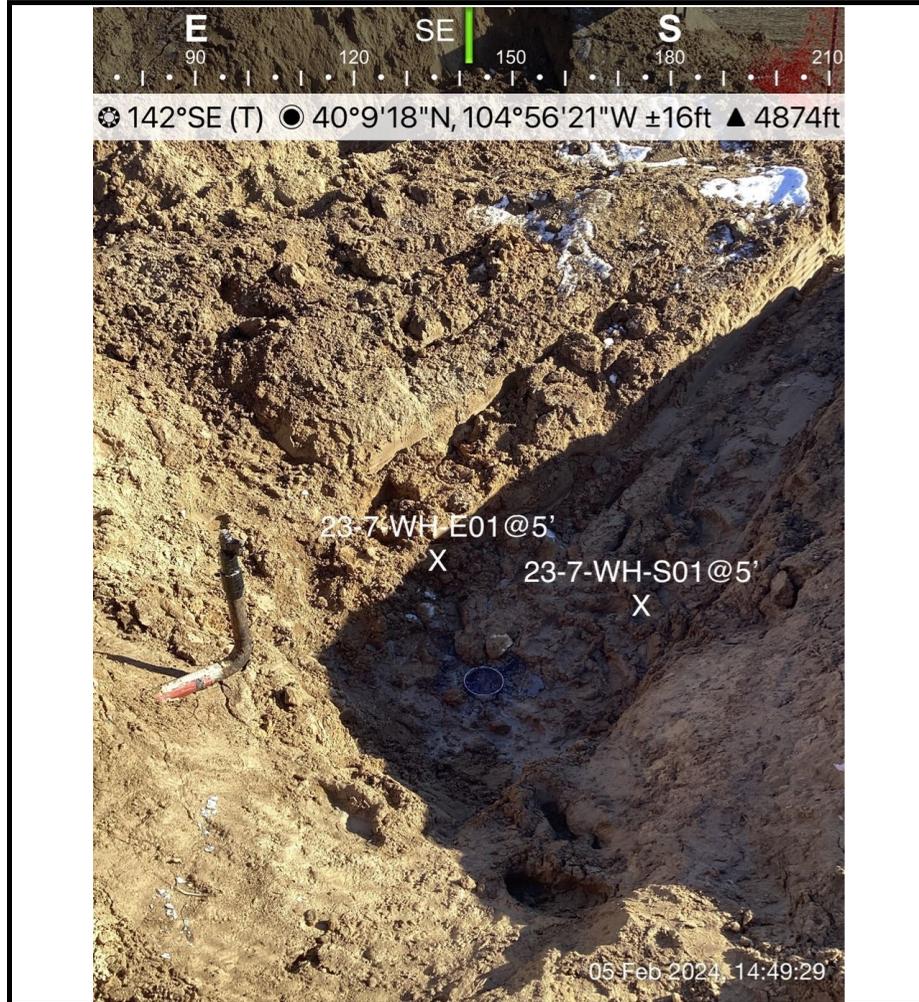


Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil screening locations			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample and screening locations			



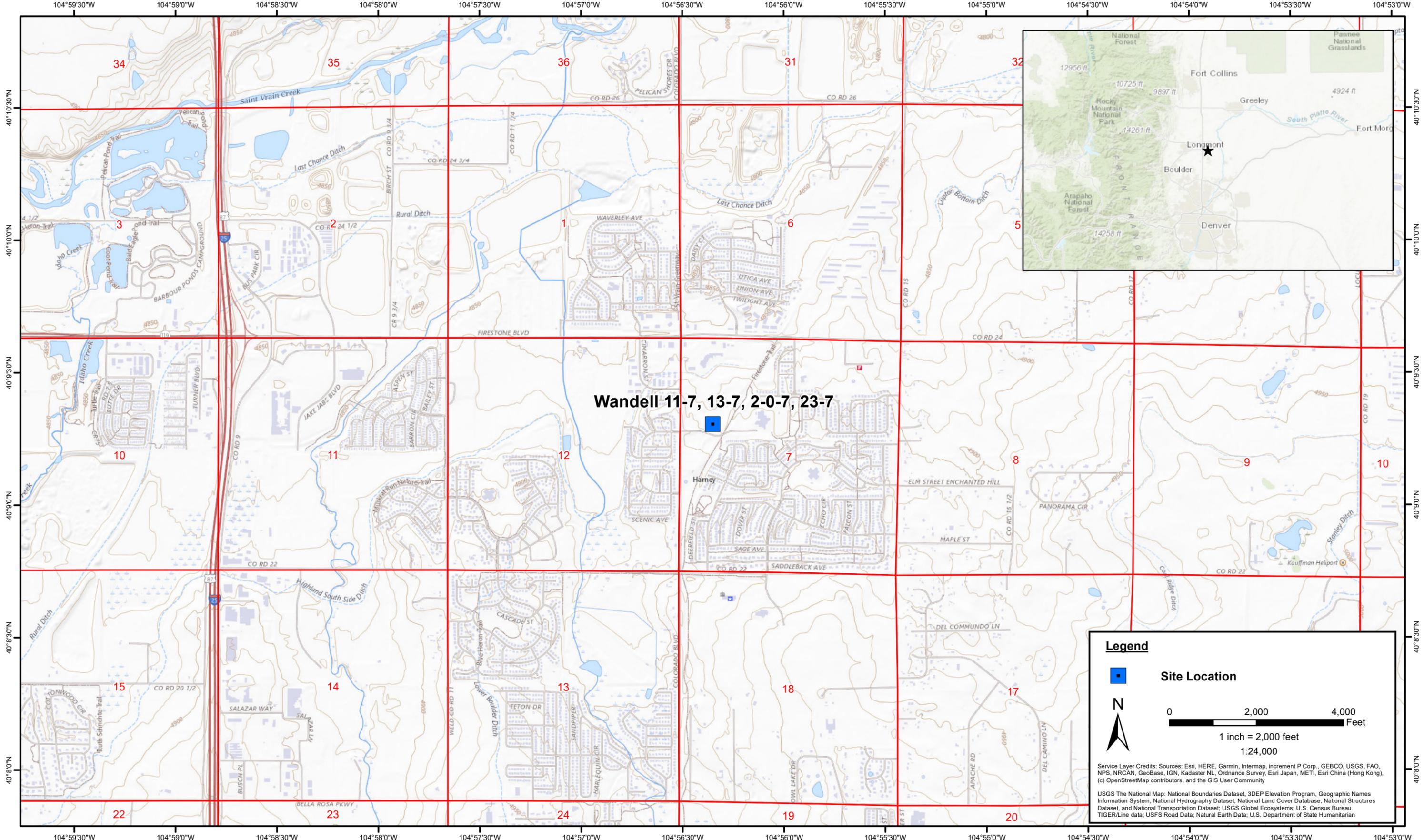
Photographic Log



Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil screening locations			

Equipment ID:		Equipment Type:	
Material:	Volume:	Contents:	
Notes/Conditions: Soil sample location			

FIGURES



Wandell 11-7, 13-7, 2-0-7, 23-7

Legend

■ Site Location

N

0 2,000 4,000 Feet

1 inch = 2,000 feet
1:24,000

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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DATE: February 2024

DESIGNED BY: S. Vogt

DRAWN BY: L. Reed

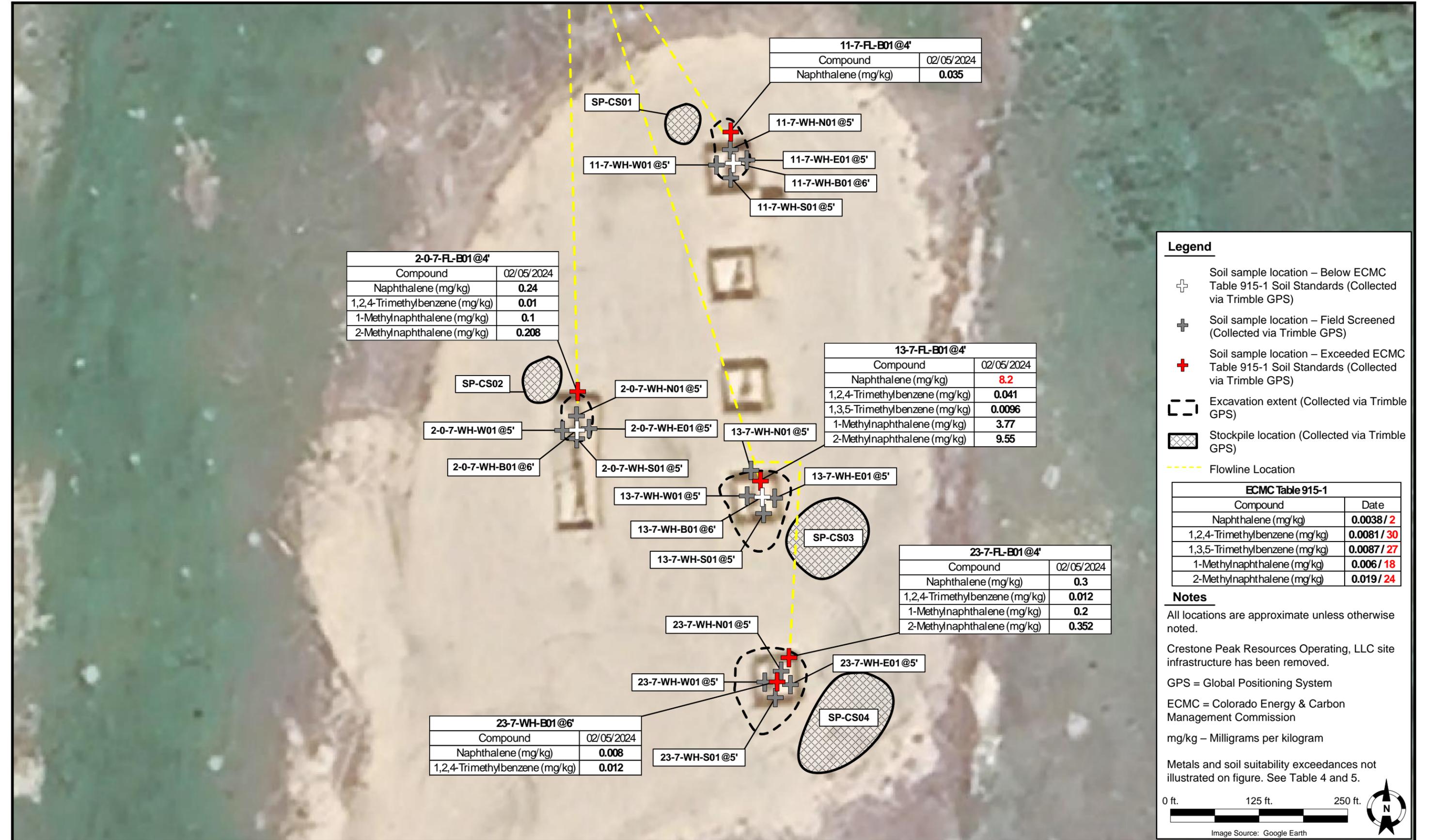


Tasman, Inc.
6855 W. 119th Ave
Broomfield, CO 80020

Crestone Peak Resources Operating LLC
Wandell 11-7, 13-7, 2-0-7, 23-7
SWNW Sec. 7-T2N-R67W
Weld County, Colorado

Site Location Map

Figure
1



DATE: March 22, 2024

DESIGNED BY: S. Vogt

DRAWN BY: L. Bakel

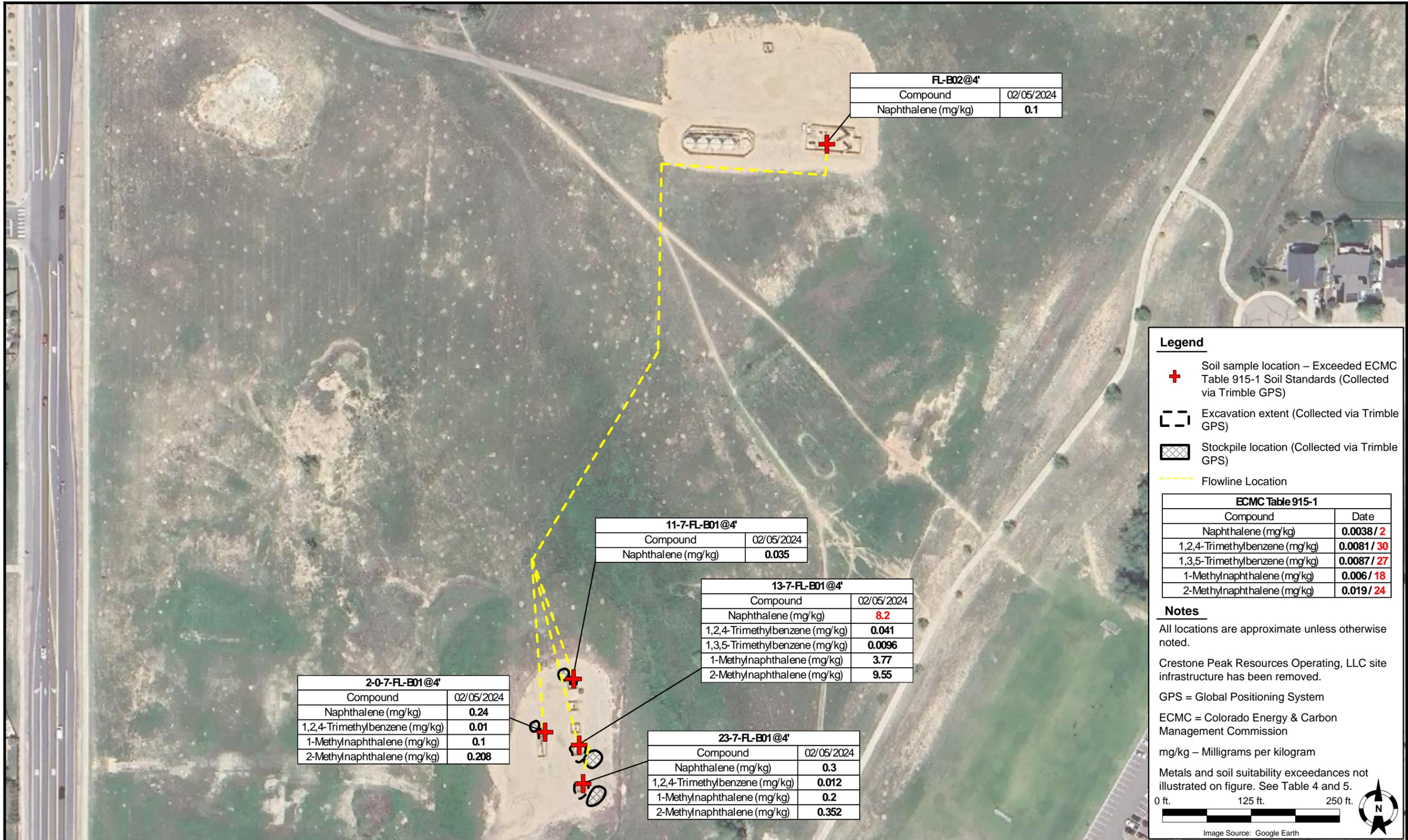


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Weld County, Colorado

Wellhead Soil Sample
Location Map
(02/05/2024)

Figure
2



FL-B02@4'	
Compound	02/05/2024
Naphthalene (mg/kg)	0.1

11-7-FL-B01@4'	
Compound	02/05/2024
Naphthalene (mg/kg)	0.035

13-7-FL-B01@4'	
Compound	02/05/2024
Naphthalene (mg/kg)	8.2
1,2,4-Trimethylbenzene (mg/kg)	0.041
1,3,5-Trimethylbenzene (mg/kg)	0.0096
1-Methylnaphthalene (mg/kg)	3.77
2-Methylnaphthalene (mg/kg)	9.55

2-0-7-FL-B01@4'	
Compound	02/05/2024
Naphthalene (mg/kg)	0.24
1,2,4-Trimethylbenzene (mg/kg)	0.01
1-Methylnaphthalene (mg/kg)	0.1
2-Methylnaphthalene (mg/kg)	0.208

23-7-FL-B01@4'	
Compound	02/05/2024
Naphthalene (mg/kg)	0.3
1,2,4-Trimethylbenzene (mg/kg)	0.012
1-Methylnaphthalene (mg/kg)	0.2
2-Methylnaphthalene (mg/kg)	0.352

- Legend**
- + Soil sample location – Exceeded ECMC Table 915-1 Soil Standards (Collected via Trimble GPS)
 - Excavation extent (Collected via Trimble GPS)
 - Stockpile location (Collected via Trimble GPS)
 - Flowline Location

ECMC Table 915-1	
Compound	Date
Naphthalene (mg/kg)	0.0038 / 2
1,2,4-Trimethylbenzene (mg/kg)	0.0081 / 30
1,3,5-Trimethylbenzene (mg/kg)	0.0087 / 27
1-Methylnaphthalene (mg/kg)	0.006 / 18
2-Methylnaphthalene (mg/kg)	0.019 / 24

Notes

All locations are approximate unless otherwise noted.

Crestone Peak Resources Operating, LLC site infrastructure has been removed.

GPS = Global Positioning System

ECMC = Colorado Energy & Carbon Management Commission

mg/kg – Milligrams per kilogram

Metals and soil suitability exceedances not illustrated on figure. See Table 4 and 5.

0 ft. 125 ft. 250 ft.

Image Source: Google Earth

DATE: March 22, 2024

DESIGNED BY: S. Vogt

DRAWN BY: L. Bakel



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Broomfield, CO 80020

Crestone Peak Resources Operating LLC
Wandell 11-7, 13-7, 2-0-7, 23-7
SWNW Sec. 7-T2N-R67W
Weld County, Colorado

Flowline Soil Sample
Location Map
(02/05/2024)

Figure
3

TABLES

TABLE 1
WANDELL 11-7, 13-7, 2-0-7, 23-7
SOIL SAMPLE LOCATIONS
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
11-7-WH-B01@6'	6'	02/05/2024	0.7	40.155509	-104.939222	0.8	Y
11-7-WH-N01@5'	5'	02/05/2024	1.6	40.155519	-104.939224	0.8	N
11-7-WH-S01@5'	5'	02/05/2024	2.1	40.155499	-104.939224	0.8	N
11-7-WH-E01@5'	5'	02/05/2024	0.9	40.155510	-104.939210	0.8	N
11-7-WH-W01@5'	5'	02/05/2024	1.1	40.155507	-104.939238	0.7	N
11-7-FL-B01@4'	4'	02/05/2024	1.4	40.155524	-104.939226	0.7	Y
SP-CS01	-	02/05/2024	0.8	-	-	-	Y
2-0-7-WH-B01@6'	6'	02/05/2024	3.6	40.155304	-104.939377	0.8	Y
2-0-7-WH-N01@5'	5'	02/05/2024	3.7	40.155308	-104.939379	0.8	N
2-0-7-WH-S01@5'	5'	02/05/2024	1.9	40.155297	-104.939380	0.7	N
2-0-7-WH-E01@5'	5'	02/05/2024	2.2	40.155303	-104.939370	0.7	N
2-0-7-WH-W01@5'	5'	02/05/2024	1.4	40.155302	-104.939393	0.8	N
2-0-7-FL-B01@4'	4'	02/05/2024	52.5	40.155316	-104.939372	0.7	Y
SP-CS02	-	02/05/2024	0.6	-	-	-	Y
13-7-WH-B01@6'	6'	02/05/2024	1.7	40.155251	-104.939194	0.9	Y
13-7-WH-N01@5'	5'	02/05/2024	3.5	40.155268	-104.939202	0.8	N
13-7-WH-S01@5'	5'	02/05/2024	3.5	40.155239	-104.939192	0.9	N
13-7-WH-E01@5'	5'	02/05/2024	2.5	40.155250	-104.939181	0.9	N
13-7-WH-W01@5'	5'	02/05/2024	2.7	40.155250	-104.939208	0.9	N
13-7-FL-B01@4'	4'	02/05/2024	183.6	40.155262	-104.939196	1	Y
SP-CS03	-	02/05/2024	0.4	-	-	-	Y
23-7-WH-B01@6'	6'	02/05/2024	1.7	40.155107	-104.939179	1.1	Y
23-7-WH-N01@5'	5'	02/05/2024	1.4	40.155116	-104.939173	1.2	N
23-7-WH-S01@5'	5'	02/05/2024	1.0	40.155096	-104.939179	1.2	N
23-7-WH-E01@5'	5'	02/05/2024	1.7	40.155106	-104.939166	1.2	N
23-7-WH-W01@5'	5'	02/05/2024	1.9	40.155107	-104.939188	1.2	N
23-7-FL-B01@4'	4'	02/05/2024	34.8	40.155119	-104.939179	1.2	Y
SP-CS04	-	02/05/2024	2.6	-	-	-	Y
FL-B02@4'	4'	02/05/2024	4.1	40.157598	-104.937940	0.7	Y

Notes:

PID = Photoionization Detector

ppm = parts per million

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

TABLE 2
WANDELL 11-7, 13-7, 2-0-7, 23-7
SOIL ANALYTICAL DATA - VOCs
CRESTONE PEAK RESOURCES OPERATING, LLC

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)
ECMC Organic Compounds in Soils - GSSL ⁽¹⁾			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
ECMC Organic Compounds in Soils - RSL ⁽²⁾			1.2	490	5.8	58	2	500			30	27
11-7-WH-B01@6'	6'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
11-7-FL-B01@4'	4'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	0.035	<0.50	<50	<50	<0.0050	<0.0050
13-7-WH-B01@6'	6'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
13-7-FL-B01@4'	4'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	8.2	1.2	450	<50	0.041	0.0096
2-0-7-WH-B01@6'	6'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
2-0-7-FL-B01@4'	4'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	0.24	<0.50	<50	<50	0.01	<0.0050
23-7-WH-B01@6'	6'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	0.008	<0.50	<50	<50	0.012	<0.0050
23-7-FL-B01@4'	4'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	0.3	<0.50	<50	<50	0.012	<0.0050
FL-B02@4'	4'	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	0.1	<0.50	<50	<50	<0.0050	<0.0050
SP-CS01	-	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS02	-	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS03	-	02/05/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
SP-CS04	-	02/05/2024	<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 ECMC 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 ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy & Carbon Management Commission

GSSL = Protection of Groundwater Screening Level

RSL = Residential Soil Screening Level

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

mg/kg = milligram 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 ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

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

TABLE 3
WANDELL 11-7, 13-7, 2-0-7, 23-7
SOIL ANALYTICAL DATA - PAHs
CRESTONE PEAK RESOURCES OPERATING, LLC

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)
ECMC Organic Compounds in Soils - GSSL ⁽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
ECMC Organic Compounds in Soils - RSL ⁽²⁾			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
11-7-WH-B01@6'	6'	02/05/2024	<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
11-7-FL-B01@4'	4'	02/05/2024	<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
13-7-WH-B01@6'	6'	02/05/2024	<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
13-7-FL-B01@4'	4'	02/05/2024	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	3.77	9.55	<0.00500
2-0-7-WH-B01@6'	6'	02/05/2024	<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
2-0-7-FL-B01@4'	4'	02/05/2024	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.1	0.208	<0.00500
23-7-WH-B01@6'	6'	02/05/2024	<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
23-7-FL-B01@4'	4'	02/05/2024	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.2	0.352	<0.00500
FL-B02@4'	4'	02/05/2024	<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	-	02/05/2024	<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	-	02/05/2024	<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-CS03	-	02/05/2024	<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-CS04	-	02/05/2024	<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 ECMC 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 ECMC Table 915-1: Organic Compounds in Soils - Residential Soil Screening Level Concentrations (Effective January 15, 2021)

ECMC = Colorado Energy & Carbon Management Commission

GSSL = Protection of Groundwater Screening Level

RSL = Residential Soil Screening Level

(<) = 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 = Dibenz(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 ECMC Table 915-1: Organic Compounds in Soils - Protection of Groundwater Soil Screening Level Concentrations

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

TABLE 4
WANDELL 11-7, 13-7, 2-0-7, 23-7
SOIL ANALYTICAL DATA - METALS
CRESTONE PEAK RESOURCES OPERATING, LLC

Soil Sample Location	Depth	Date	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Metals in Soils - GSSL ⁽¹⁾			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
ECMC Metals in Soils - RSL ⁽²⁾			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
11-7-WH-B01@6'	6'	02/05/2024	2.36	89.9	0.210	<0.30	6.73	11.8	5.79	<0.260	0.0408	23.9
11-7-FL-B01@4'	4'	02/05/2024	1.91	75.2	0.287	<0.30	6.19	14.2	5.30	<0.260	0.0294	19.4
13-7-WH-B01@6'	6'	02/05/2024	2.45	82.1	<0.200	<0.30	6.59	9.20	6.26	<0.260	0.0291	20.4
13-7-FL-B01@4'	4'	02/05/2024	1.95	70.9	<0.200	<0.30	5.91	7.03	5.57	<0.260	0.0302	17.9
2-0-7-WH-B01@6'	6'	02/05/2024	2.04	225	<0.200	<0.30	6.78	8.92	5.62	<0.260	0.0285	19.1
2-0-7-FL-B01@4'	4'	02/05/2024	1.74	143	<0.200	<0.30	6.18	5.99	5.37	<0.260	0.0323	16.7
23-7-WH-B01@6'	6'	02/05/2024	2.28	78.2	0.203	<0.30	5.13	7.78	5.75	<0.260	<0.0200	19.1
23-7-FL-B01@4'	4'	02/05/2024	2.6	95.1	0.204	<0.30	11.8	19.2	6.52	<0.260	0.0396	23.2
FL-B02@4'	4'	02/05/2024	3.40	79.3	<0.200	<0.30	5.73	7.05	5.33	<0.260	0.0406	18.1
SP-CS01	-	02/05/2024	1.87	75.0	<0.200	<0.30	6.29	11.0	5.31	<0.260	0.0296	19.7
SP-CS02	-	02/05/2024	1.15	73.6	<0.200	<0.30	4.91	4.21	4.79	<0.260	<0.0200	13.3
SP-CS03	-	02/05/2024	1.96	91.5	<0.200	<0.30	7.37	16.2	5.54	<0.260	0.0268	21.6
SP-CS04	-	02/05/2024	2.00	81.1	<0.200	<0.30	8.71	18.0	5.48	<0.260	0.0543	22.3

Notes:

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

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

ECMC = Colorado Energy & Carbon Management Commission

GSSL = Protection of Groundwater Screening Level

RSL = Residential Soil Screening Level

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

mg/kg = milligrams per kilogram

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

BOLD = Analytical result is in exceedance of ECMC Table 915-1: Metals in Soils - Residential Soil Screening Level Concentrations

TABLE 5
WANDELL 11-7, 13-7, 2-0-7, 23-7
SOIL ANALYTICAL DATA - SOIL RECLAMATION
CRESTONE PEAK RESOURCES OPERATING, LLC



Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation⁽¹⁾			6 - 8.3	< 6	< 4	2
11-7-WH-B01@6'	6'	02/05/2024	8.31	0.0300	0.210	<2.00
11-7-FL-B01@4'	4'	02/05/2024	8.24	0.125	0.300	<2.00
13-7-WH-B01@6'	6'	02/05/2024	8.98	0.530	0.315	<2.00
13-7-FL-B01@4'	4'	02/05/2024	8.53	0.0944	0.189	<2.00
2-0-7-WH-B01@6'	6'	02/05/2024	9.07	0.649	0.408	<2.00
2-0-7-FL-B01@4'	4'	02/05/2024	8.46	0.0982	0.270	<2.00
23-7-WH-B01@6'	6'	02/05/2024	11.1	4.00	0.138	<2.00
23-7-FL-B01@4'	4'	02/05/2024	8.58	0.222	0.312	<2.00
FL-B02@4'	4'	02/05/2024	8.26	0.386	0.295	<2.00
SP-CS01	-	02/05/2024	8.18	0.100	0.262	<2.00
SP-CS02	-	02/05/2024	8.72	0.0289	0.176	<2.00
SP-CS03	-	02/05/2024	8.57	0.104	0.270	<2.00
SP-CS04	-	02/05/2024	8.46	0.621	0.322	<2.00

Notes:

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

ECMC = Colorado Energy & Carbon Management 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 ECMC Table 915-1: Soil Suitability for Reclamation Concentrations

LABORATORY ANALYTICAL DATA

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 22, 2024

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

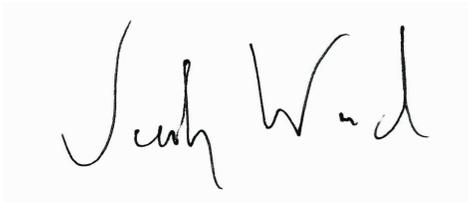
Broomfield, CO 80020

RE: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Work Order #2402089

Enclosed are the results of analyses for samples received by Summit Scientific on 02/05/24 17:38. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
 Project Manager: Sam Vogt

Reported:
 02/22/24 14:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
11-7-WH-B01@6'	2402089-01	Soil	02/05/24 13:00	02/05/24 17:38
11-7-FL-B01@4'	2402089-02	Soil	02/05/24 13:10	02/05/24 17:38
SP-CS01	2402089-03	Soil	02/05/24 13:12	02/05/24 17:38
2-0-7-WH-B01@6'	2402089-04	Soil	02/05/24 13:14	02/05/24 17:38
2-0-7-FL-B01@4'	2402089-05	Soil	02/05/24 13:24	02/05/24 17:38
SP-CS02	2402089-06	Soil	02/05/24 13:26	02/05/24 17:38
13-7-WH-B01@6'	2402089-07	Soil	02/05/24 13:28	02/05/24 17:38
13-7-FL-B01@4'	2402089-08	Soil	02/05/24 13:38	02/05/24 17:38
SP-CS03	2402089-09	Soil	02/05/24 13:40	02/05/24 17:38
23-7-WH-B01@6'	2402089-10	Soil	02/05/24 13:42	02/05/24 17:38
23-7-FL-B01@4'	2402089-11	Soil	02/05/24 13:52	02/05/24 17:38
SP-CS04	2402089-12	Soil	02/05/24 13:54	02/05/24 17:38
FL-B02@4'	2402089-13	Soil	02/05/24 15:30	02/05/24 17:38

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.

SS

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

Lab ID	Page 1 of 1
2402089	

Send Data To:		Send Invoice To:
Client: Civitas / Tasman	Project Manager: Sam Vogt / Jacob Evans	Company: Civitas
Address: 6855 W. 119th Ave.	E-Mail: Svogt@tasman-geo.com	Project Name/Location:
City/State/Zip: Broomfield, CO 80020	Jevans@civitasresources.com	AFE#: 23374, 23372, 23371, 23370
Phone: PM Phone # - (610)-405-9078	Project Name: Wandell 13-7, 11-7, 2-0-7, 23-7	PO/Billing Codes: 8523.198
Sampler Name: Logan Molson	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN	1,2,4 + 1,3,5 TMB's	TPH(GRO,DRO,ORO)	PAH	pH,EC,SAR		Boron
1	11-7-WH-B0106'	2-5-24	1300	2			X												X Full Table 915
2	11-7-FL-B0104'		1310																
3	SP-CS01		1312																
4	2-0-7-WH-B0106'		1314																
5	2-0-7-FL-B0104'		1324																
6	SP-CS02		1326																
7	13-7-WH-B0106'		1328																
8	13-7-FL-B0104'		1338																
9	SP-CS03		1340																
10	23-7-WH-B0106'		1342																
11	23-7-FL-B0104'		1352																
12	SP-CS04		1354																
13	FL-B0204'	↓	1530	↓															↓
14																			
15																			

Relinquished by: <i>JM</i>	Date/Time: 2-5-24/1630	Received by: Tasman Lockbox	Date/Time: 2-5-24/1630	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 2-5-24/1738	Received by: <i>[Signature]</i>	Date/Time: 2-5-24/1738	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 9.2	Corrected Temperature: 6	IR gun #:		HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2402089

Client Curtasman Client Project ID: Wandell 13-7, 11-7, 2-0-7, 23-7

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

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

Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽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.

AS 2/5/24
Custodian Printed Name Date/Time



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-WH-B01@6'
2402089-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHB0184	02/06/24	02/07/24	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: **02/05/24 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	0.0419	105 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	5.69	45.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-WH-B01@6'
2402089-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0284	85.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0212	63.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:00**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-WH-B01@6'
2402089-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.36	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B
Barium	89.9	0.400	"	"	"	"	"	"
Cadmium	0.210	0.200	"	"	"	"	"	"
Copper	6.73	0.400	"	"	"	"	"	"
Lead	11.8	0.200	"	"	"	"	"	"
Nickel	5.79	0.400	"	"	"	"	"	"
Silver	0.0408	0.0200	"	"	"	"	"	"
Zinc	23.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	189	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	54.7	0.0500	"	"	"	"	"	"	
Sodium	1.82	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0300	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-WH-B01@6'
2402089-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.1	%	1	BHB0369	02/12/24	02/13/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.210	0.0100	mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31		pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-FL-B01@4'
2402089-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.035	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	5.26	42.1 %	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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-FL-B01@4'
2402089-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0279	83.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0232	69.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-FL-B01@4'
2402089-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.91	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B
Barium	75.2	0.400	"	"	"	"	"	"
Cadmium	0.287	0.200	"	"	"	"	"	"
Copper	6.19	0.400	"	"	"	"	"	"
Lead	14.2	0.200	"	"	"	"	"	"
Nickel	5.30	0.400	"	"	"	"	"	"
Silver	0.0294	0.0200	"	"	"	"	"	"
Zinc	19.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	47.0	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	5.19	0.0500	"	"	"	"	"	"	
Sodium	3.37	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.125	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

11-7-FL-B01@4'
2402089-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	91.1	%	1	BHB0369	02/12/24	02/13/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.300	0.0100	mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.24		pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS01
2402089-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHB0184	02/06/24	02/08/24	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: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.10	48.8 %		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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS01
2402089-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0277	83.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0232	69.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:12**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS01
2402089-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.87	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	75.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.29	0.400	"	"	"	"	"	"	
Lead	11.0	0.200	"	"	"	"	"	"	
Nickel	5.31	0.400	"	"	"	"	"	"	
Silver	0.0296	0.0200	"	"	"	"	"	"	
Zinc	19.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.5	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	5.19	0.0500	"	"	"	"	"	"	
Sodium	2.28	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.100	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS01
2402089-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.8			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.262	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.18			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-WH-B01@6'
2402089-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHB0184	02/06/24	02/08/24	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: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0387	96.8 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0411	103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.19	49.5 %		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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-WH-B01@6'
2402089-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0259	77.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0227	68.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:14**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-WH-B01@6'
2402089-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.04	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	225	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.78	0.400	"	"	"	"	"	"	
Lead	8.92	0.200	"	"	"	"	"	"	
Nickel	5.62	0.400	"	"	"	"	"	"	
Silver	0.0285	0.0200	"	"	"	"	"	"	
Zinc	19.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.0	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	3.20	0.0500	"	"	"	"	"	"	
Sodium	14.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.649	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-WH-B01@6'
2402089-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.9			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.408	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	10.1			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-FL-B01@4'
2402089-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.010	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.24	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0394	98.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0424	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.33	50.6 %	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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-FL-B01@4'
2402089-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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	0.100	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.208	0.00500	"	"	"	"	"	"	E

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0185	55.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0187	56.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:24**

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-FL-B01@4'
2402089-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.74	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	143	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.18	0.400	"	"	"	"	"	"	
Lead	5.99	0.200	"	"	"	"	"	"	
Nickel	5.37	0.400	"	"	"	"	"	"	
Silver	0.0323	0.0200	"	"	"	"	"	"	
Zinc	16.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	77.3	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	6.35	0.0500	"	"	"	"	"	"	
Sodium	3.34	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0982	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

2-0-7-FL-B01@4'
2402089-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.6			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.270	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.46			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS02
2402089-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	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: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.42	67.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS02
2402089-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0267	80.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0217	65.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:26**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS02
2402089-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.15	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	73.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.91	0.400	"	"	"	"	"	"	
Lead	4.21	0.200	"	"	"	"	"	"	
Nickel	4.79	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	13.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	119	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	9.57	0.0500	"	"	"	"	"	"	
Sodium	1.22	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0289	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS02
2402089-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.3			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.176	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.74			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-WH-B01@6'
2402089-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHB0184	02/06/24	02/08/24	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: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0420	105 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.04	48.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-WH-B01@6'
2402089-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0303	90.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0240	72.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:28**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-WH-B01@6'
2402089-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.45	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	82.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.59	0.400	"	"	"	"	"	"	
Lead	9.20	0.200	"	"	"	"	"	"	
Nickel	6.26	0.400	"	"	"	"	"	"	
Silver	0.0291	0.0200	"	"	"	"	"	"	
Zinc	20.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	285	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	140	0.0500	"	"	"	"	"	"	
Sodium	43.7	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.530	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-WH-B01@6'
2402089-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	85.1			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.315	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	9.21			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-FL-B01@4'
2402089-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.041	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.0096	0.0050	"	"	"	"	"	"	
Naphthalene	8.2	0.038	"	10	"	"	02/08/24	"	E
Gasoline Range Hydrocarbons	1.2	0.50	"	1	"	"	02/08/24	"	

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0404	101 %	50-150	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0433	108 %	50-150	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0440	110 %	50-150	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	450	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>	7.39	59.2 %	30-150	"	"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-FL-B01@4'
2402089-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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	3.77	0.250	"	50	"	"	02/08/24	"	
2-Methylnaphthalene	9.55	0.250	"	"	"	"	"	"	E

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.00	%	40-150		"	"	02/06/24	"	S-04
Surrogate: Fluoranthene-d10	0.0217	65.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:38**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-FL-B01@4'
2402089-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.95	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	70.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.91	0.400	"	"	"	"	"	"	
Lead	7.03	0.200	"	"	"	"	"	"	
Nickel	5.57	0.400	"	"	"	"	"	"	
Silver	0.0302	0.0200	"	"	"	"	"	"	
Zinc	17.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	70.8	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	7.30	0.0500	"	"	"	"	"	"	
Sodium	3.12	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0944	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

13-7-FL-B01@4'
2402089-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.7			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.189	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:38**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.53			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS03
2402089-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	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: **02/05/24 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0393	98.3 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0421	105 %	50-150	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %	50-150	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	5.97	47.8 %	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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS03
2402089-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0311	93.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0260	78.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:40**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS03
2402089-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.96	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	91.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	7.37	0.400	"	"	"	"	"	"	
Lead	16.2	0.200	"	"	"	"	"	"	
Nickel	5.54	0.400	"	"	"	"	"	"	
Silver	0.0268	0.0200	"	"	"	"	"	"	
Zinc	21.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	912	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	162	0.0500	"	"	"	"	"	"	
Sodium	13.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.104	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS03
2402089-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.1			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.270	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.57			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-WH-B01@6'
2402089-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.012	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.0080	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0421	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.15	57.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-WH-B01@6'
2402089-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0294	88.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0238	71.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
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Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-WH-B01@6'
2402089-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.28	0.200	mg/kg dry	1	BHB0592	02/19/24	02/21/24	EPA 6020B	
Barium	78.2	0.400	"	"	"	"	"	"	
Cadmium	0.203	0.200	"	"	"	"	"	"	
Copper	5.13	0.400	"	"	"	"	"	"	
Lead	7.78	0.200	"	"	"	"	"	"	
Nickel	5.75	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	19.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.9	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	146	0.0500	"	"	"	"	"	"	
Sodium	260	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.00	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-WH-B01@6'
2402089-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.138	0.0100	mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	11.1		pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-FL-B01@4'
2402089-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.012	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.30	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0382	95.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0424	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.66	53.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-FL-B01@4'
2402089-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/06/24	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	0.200	0.00500	"	"	"	"	"	"	E
2-Methylnaphthalene	0.352	0.00500	"	"	"	"	"	"	E

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0208	62.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:52**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-FL-B01@4'
2402089-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.60	0.200	mg/kg dry	1	BHB0593	02/19/24	02/21/24	EPA 6020B
Barium	95.1	0.400	"	"	"	"	"	"
Cadmium	0.204	0.200	"	"	"	"	"	"
Copper	11.8	0.400	"	"	"	"	"	"
Lead	19.2	0.200	"	"	"	"	"	"
Nickel	6.52	0.400	"	"	"	"	"	"
Silver	0.0396	0.0200	"	"	"	"	"	"
Zinc	23.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	1170	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	219	0.0500	"	"	"	"	"	"	
Sodium	31.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.222	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

23-7-FL-B01@4'
2402089-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.9	%	1	BHB0369	02/12/24	02/13/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.312	0.0100	mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.58		pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS04
2402089-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0184	02/06/24	02/08/24	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: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0405	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0426	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0397	99.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.79	54.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS04
2402089-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/07/24	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: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0299	89.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0255	76.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 13:54**

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 - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS04
2402089-12 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.00	0.200	mg/kg dry	1	BHB0593	02/19/24	02/21/24	EPA 6020B	
Barium	81.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	8.71	0.400	"	"	"	"	"	"	
Lead	25.6	0.200	"	"	"	"	"	"	
Nickel	5.48	0.400	"	"	"	"	"	"	
Silver	0.0543	0.0200	"	"	"	"	"	"	
Zinc	22.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	69.0	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	7.77	0.0500	"	"	"	"	"	"	
Sodium	20.4	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.621	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

SP-CS04
2402089-12 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.4			%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.322	0.0100		mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 13:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.46			pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

FL-B02@4'
2402089-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHB0184	02/06/24	02/08/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	0.10	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHB0182	02/06/24	02/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	5.44	43.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

FL-B02@4'
2402089-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHB0156	02/06/24	02/07/24	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: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0267	80.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0213	64.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHB0522	02/15/24	02/16/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

FL-B02@4'
2402089-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.40	0.200	mg/kg dry	1	BHB0593	02/19/24	02/21/24	EPA 6020B	
Barium	79.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.73	0.400	"	"	"	"	"	"	
Lead	7.05	0.200	"	"	"	"	"	"	
Nickel	5.33	0.400	"	"	"	"	"	"	
Silver	0.0406	0.0200	"	"	"	"	"	"	
Zinc	18.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0237	02/07/24	02/07/24	EPA 7196A	

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

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.9	0.0500	mg/L dry	1	BHB0217	02/07/24	02/10/24	EPA 6020B	
Magnesium	8.56	0.0500	"	"	"	"	"	"	
Sodium	9.60	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.386	0.00100	units	1	BHB0436	02/13/24	02/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

FL-B02@4'
2402089-13 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.7		%	1	BHB0369	02/12/24	02/13/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.295	0.0100	mmhos/cm	1	BHB0266	02/08/24	02/08/24	EPA 120.1	

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

Date Sampled: **02/05/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.26		pH Units	1	BHB0262	02/08/24	02/08/24	EPA 9045D	

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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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 BHB0184 - EPA 5030 Soil MS

Blank (BHB0184-BLK1)

Prepared: 02/06/24 Analyzed: 02/07/24

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	0.0383		"	0.0400		95.8	50-150			
Surrogate: Toluene-d8	0.0414		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	50-150			

LCS (BHB0184-BS1)

Prepared: 02/06/24 Analyzed: 02/07/24

Benzene	0.0980	0.0020	mg/kg	0.100		98.0	70-130			
Toluene	0.0966	0.0050	"	0.100		96.6	70-130			
Ethylbenzene	0.0919	0.0050	"	0.100		91.9	70-130			
m,p-Xylene	0.178	0.010	"	0.200		89.1	70-130			
o-Xylene	0.0908	0.0050	"	0.100		90.8	70-130			
1,2,4-Trimethylbenzene	0.0938	0.0050	"	0.100		93.8	70-130			
1,3,5-Trimethylbenzene	0.0912	0.0050	"	0.100		91.2	70-130			
Naphthalene	0.107	0.0038	"	0.100		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0388		"	0.0400		97.0	50-150			
Surrogate: Toluene-d8	0.0410		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0429		"	0.0400		107	50-150			

Matrix Spike (BHB0184-MS1)

Source: 2402089-01

Prepared: 02/06/24 Analyzed: 02/07/24

Benzene	0.0875	0.0020	mg/kg	0.100	ND	87.5	70-130			
Toluene	0.0843	0.0050	"	0.100	ND	84.3	70-130			
Ethylbenzene	0.0809	0.0050	"	0.100	ND	80.9	70-130			
m,p-Xylene	0.154	0.010	"	0.200	ND	76.9	70-130			
o-Xylene	0.0776	0.0050	"	0.100	ND	77.6	70-130			
1,2,4-Trimethylbenzene	0.0745	0.0050	"	0.100	ND	74.5	70-130			
1,3,5-Trimethylbenzene	0.0725	0.0050	"	0.100	ND	72.5	70-130			
Naphthalene	0.0886	0.0038	"	0.100	ND	88.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0377		"	0.0400		94.4	50-150			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.6	50-150			
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		105	50-150			

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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHB0184 - EPA 5030 Soil MS

Matrix Spike Dup (BHB0184-MSD1)	Source: 2402089-01			Prepared: 02/06/24 Analyzed: 02/07/24						
Benzene	0.0860	0.0020	mg/kg	0.100	ND	86.0	70-130	1.73	30	
Toluene	0.0818	0.0050	"	0.100	ND	81.8	70-130	2.93	30	
Ethylbenzene	0.0781	0.0050	"	0.100	ND	78.1	70-130	3.59	30	
m,p-Xylene	0.147	0.010	"	0.200	ND	73.5	70-130	4.51	30	
o-Xylene	0.0741	0.0050	"	0.100	ND	74.1	70-130	4.59	30	
1,2,4-Trimethylbenzene	0.0685	0.0050	"	0.100	ND	68.5	70-130	8.48	30	QM-07
1,3,5-Trimethylbenzene	0.0673	0.0050	"	0.100	ND	67.3	70-130	7.46	30	QM-07
Naphthalene	0.0863	0.0038	"	0.100	ND	86.3	70-130	2.64	30	
Surrogate: 1,2-Dichloroethane-d4	0.0387		"	0.0400		96.8	50-150			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		104	50-150			

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Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHB0182 - EPA 3550A

Blank (BHB0182-BLK1)

Prepared: 02/06/24 Analyzed: 02/08/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	10.3		"	12.5		82.7	30-150			

LCS (BHB0182-BS1)

Prepared: 02/06/24 Analyzed: 02/08/24

C10-C28 (DRO)	415	50	mg/kg	500		83.0	70-130			
Surrogate: <i>o</i> -Terphenyl	8.71		"	12.5		69.7	30-150			

Matrix Spike (BHB0182-MS1)

Source: 2402089-01

Prepared: 02/06/24 Analyzed: 02/08/24

C10-C28 (DRO)	400	50	mg/kg	500	19.8	76.0	70-130			
Surrogate: <i>o</i> -Terphenyl	9.27		"	12.5		74.1	30-150			

Matrix Spike Dup (BHB0182-MSD1)

Source: 2402089-01

Prepared: 02/06/24 Analyzed: 02/08/24

C10-C28 (DRO)	393	50	mg/kg	500	19.8	74.7	70-130	1.63	20	
Surrogate: <i>o</i> -Terphenyl	8.70		"	12.5		69.6	30-150			

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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 BHB0156 - EPA 5030 Soil MS

Blank (BHB0156-BLK1)

Prepared & Analyzed: 02/06/24

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>0.0298</i>		"	<i>0.0333</i>		<i>89.3</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0337</i>		"	<i>0.0333</i>		<i>101</i>		<i>40-150</i>		

LCS (BHB0156-BS1)

Prepared & Analyzed: 02/06/24

Acenaphthene	0.0315	0.00500	mg/kg	0.0333		94.5		31-137		
Anthracene	0.0304	0.00500	"	0.0333		91.2		30-120		
Benzo (a) anthracene	0.0265	0.00500	"	0.0333		79.6		30-120		
Benzo (a) pyrene	0.0304	0.00500	"	0.0333		91.2		30-120		
Benzo (b) fluoranthene	0.0303	0.00500	"	0.0333		91.0		30-120		
Benzo (k) fluoranthene	0.0336	0.00500	"	0.0333		101		30-120		
Chrysene	0.0305	0.00500	"	0.0333		91.5		30-120		
Dibenz (a,h) anthracene	0.0273	0.00500	"	0.0333		81.9		30-120		
Fluoranthene	0.0339	0.00500	"	0.0333		102		30-120		
Fluorene	0.0329	0.00500	"	0.0333		98.6		30-120		
Indeno (1,2,3-cd) pyrene	0.0220	0.00500	"	0.0333		66.0		30-120		
Pyrene	0.0278	0.00500	"	0.0333		83.3		35-142		
1-Methylnaphthalene	0.0324	0.00500	"	0.0333		97.1		35-142		
2-Methylnaphthalene	0.0318	0.00500	"	0.0333		95.3		35-142		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0302</i>		"	<i>0.0333</i>		<i>90.5</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0342</i>		"	<i>0.0333</i>		<i>103</i>		<i>40-150</i>		

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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 BHB0156 - EPA 5030 Soil MS

Matrix Spike (BHB0156-MS1)	Source: 2402083-01			Prepared & Analyzed: 02/06/24						
Acenaphthene	0.0200	0.00500	mg/kg	0.0333	ND	60.1	31-137			
Anthracene	0.0187	0.00500	"	0.0333	ND	56.1	30-120			
Benzo (a) anthracene	0.0157	0.00500	"	0.0333	ND	47.2	30-120			
Benzo (a) pyrene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Benzo (b) fluoranthene	0.0169	0.00500	"	0.0333	ND	50.6	30-120			
Benzo (k) fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120			
Chrysene	0.0184	0.00500	"	0.0333	ND	55.1	30-120			
Dibenz (a,h) anthracene	0.0156	0.00500	"	0.0333	ND	46.7	30-120			
Fluoranthene	0.0194	0.00500	"	0.0333	ND	58.3	30-120			
Fluorene	0.0206	0.00500	"	0.0333	ND	61.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0181	0.00500	"	0.0333	ND	54.3	30-120			
Pyrene	0.0158	0.00500	"	0.0333	ND	47.3	35-142			
1-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.5	15-130			
2-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.2	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0186</i>		<i>"</i>	<i>0.0333</i>		<i>55.9</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0204</i>		<i>"</i>	<i>0.0333</i>		<i>61.1</i>	<i>40-150</i>			

Matrix Spike Dup (BHB0156-MSD1)	Source: 2402083-01			Prepared & Analyzed: 02/06/24						
Acenaphthene	0.0163	0.00500	mg/kg	0.0333	ND	49.0	31-137	20.4	30	
Anthracene	0.0161	0.00500	"	0.0333	ND	48.2	30-120	15.3	30	
Benzo (a) anthracene	0.0134	0.00500	"	0.0333	ND	40.2	30-120	16.2	30	
Benzo (a) pyrene	0.0152	0.00500	"	0.0333	ND	45.6	30-120	9.19	30	
Benzo (b) fluoranthene	0.0140	0.00500	"	0.0333	ND	41.9	30-120	18.9	30	
Benzo (k) fluoranthene	0.0170	0.00500	"	0.0333	ND	51.0	30-120	13.7	30	
Chrysene	0.0155	0.00500	"	0.0333	ND	46.5	30-120	17.0	30	
Dibenz (a,h) anthracene	0.0182	0.00500	"	0.0333	ND	54.7	30-120	15.7	30	
Fluoranthene	0.0167	0.00500	"	0.0333	ND	50.1	30-120	15.3	30	
Fluorene	0.0174	0.00500	"	0.0333	ND	52.2	30-120	16.7	30	
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.7	30-120	0.765	30	
Pyrene	0.0177	0.00500	"	0.0333	ND	53.2	35-142	11.7	30	
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.7	15-130	22.8	50	
2-Methylnaphthalene	0.0153	0.00500	"	0.0333	ND	46.0	15-130	19.9	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0173</i>		<i>"</i>	<i>0.0333</i>		<i>51.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0175</i>		<i>"</i>	<i>0.0333</i>		<i>52.5</i>	<i>40-150</i>			

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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

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

Batch BHB0522 - EPA 3050B

Blank (BHB0522-BLK1)

Prepared: 02/15/24 Analyzed: 02/16/24

Boron ND 2.00 mg/L

LCS (BHB0522-BS1)

Prepared: 02/15/24 Analyzed: 02/16/24

Boron 5.02 2.00 mg/L 5.00 100 80-120

Duplicate (BHB0522-DUP1)

Source: 2402089-01

Prepared: 02/15/24 Analyzed: 02/16/24

Boron 0.182 2.00 mg/L 0.183 0.0219 20

Matrix Spike (BHB0522-MS1)

Source: 2402089-01

Prepared: 02/15/24 Analyzed: 02/16/24

Boron 5.02 2.00 mg/L 5.00 0.183 96.7 75-125

Matrix Spike Dup (BHB0522-MSD1)

Source: 2402089-01

Prepared: 02/15/24 Analyzed: 02/16/24

Boron 5.10 2.00 mg/L 5.00 0.183 98.3 75-125 1.55 25

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Tasman Geosciences
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Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHB0592 - EPA 3050B

Blank (BHB0592-BLK1)

Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHB0592-BS1)

Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	38.3	0.200	mg/kg wet	40.0	95.7	80-120
Barium	39.2	0.400	"	40.0	98.1	80-120
Cadmium	1.98	0.200	"	2.00	98.9	80-120
Copper	43.5	0.400	"	40.0	109	80-120
Lead	19.6	0.200	"	20.0	98.1	80-120
Nickel	42.1	0.400	"	40.0	105	80-120
Silver	1.98	0.0200	"	2.00	98.8	80-120
Zinc	42.2	0.400	"	40.0	106	80-120
Selenium	4.47	0.260	"	4.00	112	80-120

Duplicate (BHB0592-DUP1)

Source: 2311564-02RE1

Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	2.83	0.200	mg/kg wet	2.24	23.3	20	QR-03
Barium	88.3	0.400	"	83.3	5.76	20	
Cadmium	0.192	0.200	"	0.204	6.26	20	
Copper	3.88	0.400	"	3.36	14.3	20	
Lead	5.38	0.200	"	4.82	10.9	20	
Nickel	4.83	0.400	"	4.31	11.4	20	
Silver	0.0224	0.0200	"	0.0232	3.51	20	
Zinc	14.5	0.400	"	13.3	8.79	20	
Selenium	ND	0.260	"	ND		20	

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHB0592 - EPA 3050B

Matrix Spike (BHB0592-MS1)

Source: 2311564-02RE1 Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	39.1	0.200	mg/kg wet	40.0	2.24	92.0	75-125			
Barium	127	0.400	"	40.0	83.3	110	75-125			
Cadmium	2.17	0.200	"	2.00	0.204	98.1	75-125			
Copper	27.7	0.400	"	40.0	3.36	60.8	75-125			QM-05
Lead	24.4	0.200	"	20.0	4.82	98.0	75-125			
Nickel	28.9	0.400	"	40.0	4.31	61.5	75-125			QM-05
Silver	1.91	0.0200	"	2.00	0.0232	94.5	75-125			
Zinc	39.0	0.400	"	40.0	13.3	64.3	75-125			QM-05
Selenium	3.53	0.260	"	4.00	ND	88.3	75-125			

Matrix Spike Dup (BHB0592-MSD1)

Source: 2311564-02RE1 Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	39.6	0.200	mg/kg wet	40.0	2.24	93.4	75-125	1.40	25	
Barium	129	0.400	"	40.0	83.3	115	75-125	1.61	25	
Cadmium	2.22	0.200	"	2.00	0.204	101	75-125	2.30	25	
Copper	28.1	0.400	"	40.0	3.36	61.7	75-125	1.29	25	QM-05
Lead	24.7	0.200	"	20.0	4.82	99.5	75-125	1.21	25	
Nickel	29.2	0.400	"	40.0	4.31	62.3	75-125	1.18	25	QM-05
Silver	1.95	0.0200	"	2.00	0.0232	96.1	75-125	1.66	25	
Zinc	39.5	0.400	"	40.0	13.3	65.4	75-125	1.15	25	QM-05
Selenium	3.65	0.260	"	4.00	ND	91.2	75-125	3.26	25	

Post Spike (BHB0592-PS1)

Source: 2311564-02RE1 Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	115		ug/l	100	5.60	109	75-125			
Barium	309		"	100	208	100	75-125			
Cadmium	6.08		"	5.00	0.511	111	75-125			
Copper	80.4		"	100	8.41	72.0	75-125			QM-05
Lead	65.4		"	50.0	12.1	107	75-125			
Nickel	82.7		"	100	10.8	71.9	75-125			QM-05
Silver	5.51		"	5.00	0.0580	109	75-125			
Zinc	105		"	100	33.3	72.1	75-125			QM-05
Selenium	12.7		"	10.0	0.0820	126	75-125			QM-05

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Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHB0593 - EPA 3050B

Blank (BHB0593-BLK1)

Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHB0593-BS1)

Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	39.9	0.200	mg/kg wet	40.0	99.8	80-120
Barium	40.8	0.400	"	40.0	102	80-120
Cadmium	2.05	0.200	"	2.00	103	80-120
Copper	45.5	0.400	"	40.0	114	80-120
Lead	20.4	0.200	"	20.0	102	80-120
Nickel	44.0	0.400	"	40.0	110	80-120
Silver	2.07	0.0200	"	2.00	103	80-120
Zinc	44.0	0.400	"	40.0	110	80-120
Selenium	4.74	0.260	"	4.00	119	80-120

Duplicate (BHB0593-DUP1)

Source: 2401452-01RE1

Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	2.24	0.200	mg/kg wet	2.46	9.41	20
Barium	62.6	0.400	"	65.7	4.89	20
Cadmium	0.148	0.200	"	0.168	12.6	20
Copper	4.20	0.400	"	3.85	8.61	20
Lead	9.06	0.200	"	7.51	18.8	20
Nickel	3.72	0.400	"	4.05	8.39	20
Silver	0.0252	0.0200	"	0.0236	6.56	20
Zinc	17.8	0.400	"	16.0	10.8	20
Selenium	ND	0.260	"	ND		20

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHB0593 - EPA 3050B

Matrix Spike (BHB0593-MS1)

Source: 2401452-01RE1 Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	42.9	0.200	mg/kg wet	40.0	2.46	101	75-125			
Barium	99.8	0.400	"	40.0	65.7	85.3	75-125			
Cadmium	2.20	0.200	"	2.00	0.168	102	75-125			
Copper	36.1	0.400	"	40.0	3.85	80.5	75-125			
Lead	29.7	0.200	"	20.0	7.51	111	75-125			
Nickel	35.7	0.400	"	40.0	4.05	79.1	75-125			
Silver	2.05	0.0200	"	2.00	0.0236	101	75-125			
Zinc	48.3	0.400	"	40.0	16.0	80.7	75-125			
Selenium	4.18	0.260	"	4.00	ND	105	75-125			

Matrix Spike Dup (BHB0593-MSD1)

Source: 2401452-01RE1 Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	43.3	0.200	mg/kg wet	40.0	2.46	102	75-125	0.833	25
Barium	101	0.400	"	40.0	65.7	89.2	75-125	1.53	25
Cadmium	2.26	0.200	"	2.00	0.168	105	75-125	2.56	25
Copper	36.0	0.400	"	40.0	3.85	80.5	75-125	0.0610	25
Lead	30.1	0.200	"	20.0	7.51	113	75-125	1.18	25
Nickel	35.5	0.400	"	40.0	4.05	78.6	75-125	0.578	25
Silver	2.09	0.0200	"	2.00	0.0236	103	75-125	1.95	25
Zinc	48.4	0.400	"	40.0	16.0	81.1	75-125	0.312	25
Selenium	4.33	0.260	"	4.00	ND	108	75-125	3.52	25

Post Spike (BHB0593-PS1)

Source: 2401452-01RE1 Prepared: 02/19/24 Analyzed: 02/21/24

Arsenic	114		ug/l	100	6.14	108	75-125		
Barium	265		"	100	164	100	75-125		
Cadmium	6.01		"	5.00	0.421	112	75-125		
Copper	102		"	100	9.63	91.9	75-125		
Lead	73.5		"	50.0	18.8	109	75-125		
Nickel	100		"	100	10.1	90.0	75-125		
Silver	5.64		"	5.00	0.0590	112	75-125		
Zinc	133		"	100	40.0	93.5	75-125		
Selenium	11.4		"	10.0	0.246	111	75-125		

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHB0237 - 3060A Mod

Blank (BHB0237-BLK1)

Prepared & Analyzed: 02/07/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHB0237-BS1)

Prepared & Analyzed: 02/07/24

Chromium, Hexavalent 24.8 0.30 mg/kg wet 25.0 99.0 80-120

Duplicate (BHB0237-DUP1)

Source: 2402063-01

Prepared & Analyzed: 02/07/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHB0237-MS1)

Source: 2402063-01

Prepared & Analyzed: 02/07/24

Chromium, Hexavalent 23.8 0.30 mg/kg dry 28.3 ND 84.0 75-125

Matrix Spike Dup (BHB0237-MSD1)

Source: 2402063-01

Prepared & Analyzed: 02/07/24

Chromium, Hexavalent 23.9 0.30 mg/kg dry 28.3 ND 84.4 75-125 0.475 20

Summit Scientific

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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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 BHB0217 - General Preparation

Blank (BHB0217-BLK1)

Prepared: 02/07/24 Analyzed: 02/10/24

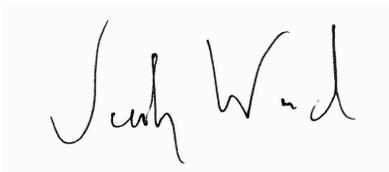
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BHB0217-BS1)

Prepared: 02/07/24 Analyzed: 02/10/24

Calcium	4.12	0.0500	mg/L wet	5.00		82.5	70-130			
Magnesium	4.69	0.0500	"	5.00		93.7	70-130			
Sodium	4.64	0.0500	"	5.00		92.7	70-130			

Summit Scientific



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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

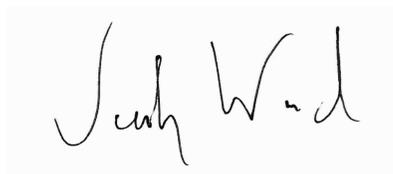
Summit Scientific

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

Batch BHB0369 - General Preparation

Duplicate (BHB0369-DUP1)		Source: 2401292-01		Prepared: 02/12/24 Analyzed: 02/13/24	
% Solids	82.9	%		83.0	0.111 20

Summit Scientific



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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 BHB0266 - General Preparation

Blank (BHB0266-BLK1)

Prepared & Analyzed: 02/08/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHB0266-BS1)

Prepared & Analyzed: 02/08/24

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

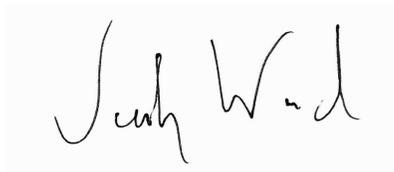
Duplicate (BHB0266-DUP1)

Source: 2401292-01

Prepared & Analyzed: 02/08/24

Specific Conductance (EC) 0.788 0.0100 mmhos/cm 0.794 0.796 20

Summit Scientific



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

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 BHB0262 - General Preparation

LCS (BHB0262-BS1)

Prepared & Analyzed: 02/08/24

pH 9.38 pH Units 9.18 102 95-105

Duplicate (BHB0262-DUP1)

Source: 2401292-01

Prepared & Analyzed: 02/08/24

pH 8.65 pH Units 8.66 0.116 20

Summit Scientific

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



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

Project: Civitas - Wandell 13-7, 11-7, 2-0-7, 23-7

Project Number: 23374, 23372, 23371, 23370
Project Manager: Sam Vogt

Reported:
02/22/24 14:58

Notes and Definitions

- S-04 A sample matrix effect prevented complete surrogate recovery.
- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference