

# **Mickey 5-F SEP**

SWNE Sec. 5-T6N-R67W

Facility/Location ID: 430411

Spill/Release Point ID: 486166

Soil Boring Assessment

February 2024 through April 2024

Prepared by Tasman, Inc.



On behalf of Extraction Oil & Gas, Inc.



## **BORING LOGS**



# TASMAN

6855 W. 119th Ave  
Broomfield, CO 80020

<b>CLIENT:</b> Extraction Oil & Gas INC	<b>SITE NAME:</b> Mickey 5-F SEP Facility ID: 430411
<b>LOGGED BY:</b> Daniel Hensel	<b>SOIL BORING ID:</b> DEL-E01
<b>PROJECT MANAGER:</b> Sam Vogt	
<b>DRILLING CONTRACTOR:</b> Tasman, INC.	<b>LOCATION:</b> SWNE Sec. 5-T6N-R67W
<b>DRILLING EQUIPMENT:</b> HydroVac/Hand Auger	<b>LATITUDE (WGS 84):</b> 40.513669
<b>DRILL BIT SIZE (INCHES):</b> 3.25"	<b>LONGITUDE (WGS 84):</b> -104.923396
<b>DATE STARTED - COMPLETED:</b> 04/04/24-04/04/24	<b>TOTAL WELL DEPTH (FT. BGS):</b> 5
	<b>DEPTH TO WATER (FT. BGS):</b> N/A ▼

Depth (feet)	Drill Tooling	% Rec. 25 50 75	Lithologic Description	USCS	PID (ppm)		Lab	Well Construction	Depth (feet)
					100	1000			
0			Brown/Tan SAND with some gravel and trace silt, well graded, fine-coarse grained, dry, non plastic, non cohesive, no hydrocarbon odor, no hydrocarbon staining	SW				Native Soil	0
1									
2			Brown CLAYEY SAND with trace gravel, poorly graded, fine grained, dry, low plasticity, cohesive, no hydrocarbon odor, no hydrocarbon staining	SC					
3									
4			Tan CLAYEY SAND with trace gravel, poorly graded, fine grained, dry, low plasticity, cohesive, no hydrocarbon odor, no hydrocarbon staining						
5									5

#### Drilling / Sample Method:

Direct Push Technology  
 Hollow Stem Auger  
 Hydrovac  
 Hand Auger  
 Hydrovac / Hand Auger

#### Laboratory Sample Types:

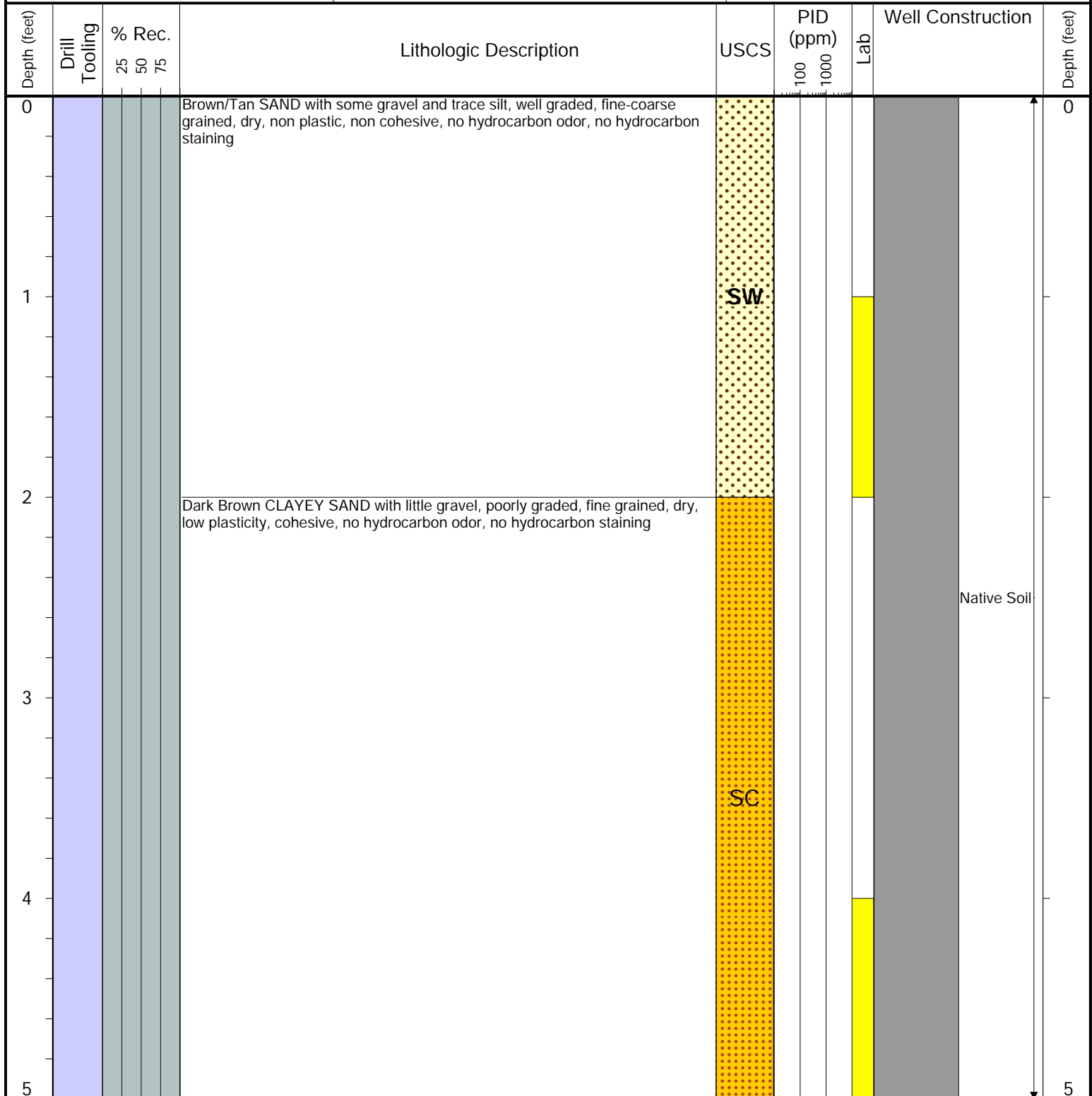
Geotechnical Lab  
 Analytical Chemistry Lab  
 Geotechnical & Analytical Chemistry Lab



# TASMAN

6855 W. 119th Ave  
Broomfield, CO 80020

<b>CLIENT:</b> Extraction Oil & Gas INC	<b>SITE NAME:</b> Mickey 5-F SEP Facility ID: 430411
<b>LOGGED BY:</b> Daniel Hensel	<b>SOIL BORING ID:</b> DEL-N01
<b>PROJECT MANAGER:</b> Sam Vogt	<b>LOCATION:</b> SWNE Sec. 5-T6N-R67W
<b>DRILLING CONTRACTOR:</b> Tasman, INC.	<b>LATITUDE (WGS 84):</b> 40.513737
<b>DRILLING EQUIPMENT:</b> HydroVac/Hand Auger	<b>LONGITUDE (WGS 84):</b> -104.923459
<b>DRILL BIT SIZE (INCHES):</b> 3.25"	<b>TOTAL WELL DEPTH (FT. BGS):</b> 5
<b>DATE STARTED - COMPLETED:</b> 04/04/24-04/04/24	<b>DEPTH TO WATER (FT. BGS):</b> N/A



Drilling / Sample Method:

Direct Push Technology  
 Hollow Stem Auger  
 Hydrovac  
 Hand Auger  
 Hydrovac / Hand Auger

Laboratory Sample Types:

Geotechnical Lab  
 Analytical Chemistry Lab  
 Geotechnical & Analytical Chemistry Lab



# TASMAN

6855 W. 119th Ave  
Broomfield, CO 80020

<b>CLIENT:</b> Extraction Oil & Gas INC	<b>SITE NAME:</b> Mickey 5-F SEP Facility ID: 430411
<b>LOGGED BY:</b> Daniel Hensel	<b>SOIL BORING ID:</b> DEL-S01
<b>PROJECT MANAGER:</b> Sam Vogt	<b>LOCATION:</b> SWNE Sec. 5-T6N-R67W
<b>DRILLING CONTRACTOR:</b> Tasman, INC.	<b>LATITUDE (WGS 84):</b> 40.513624
<b>DRILLING EQUIPMENT:</b> HydroVac/Hand Auger	<b>LONGITUDE (WGS 84):</b> -104.92342
<b>DRILL BIT SIZE (INCHES):</b> 3.25"	<b>TOTAL WELL DEPTH (FT. BGS):</b> 5
<b>DATE STARTED - COMPLETED:</b> 04/04/24-04/04/24	<b>DEPTH TO WATER (FT. BGS):</b> N/A ▼

Depth (feet)	Drill Tooling	% Rec. 25 50 75	Lithologic Description	USCS	PID (ppm) 100 1000	Lab	Well Construction	Depth (feet)
0			Brown/Tan SAND with some gravel, well graded, fine-coarse grained, dry, non plastic, non cohesive, no hydrocarbon odor, no hydrocarbon staining	SW				0
1								
2			Brown CLAYEY SAND, poorly graded, fine grained, dry, low plasticity, cohesive, no hydrocarbon odor, no hydrocarbon staining	SC				
3								
4			Tan CLAYEY SAND with trace gravel, poorly graded, fine grained, dry, low plasticity, cohesive, no hydrocarbon odor, no hydrocarbon staining					
5								5

**Drilling / Sample Method:**

Direct Push Technology  
 Hollow Stem Auger  
 Hydrovac  
 Hand Auger  
 Hydrovac / Hand Auger

**Laboratory Sample Types:**

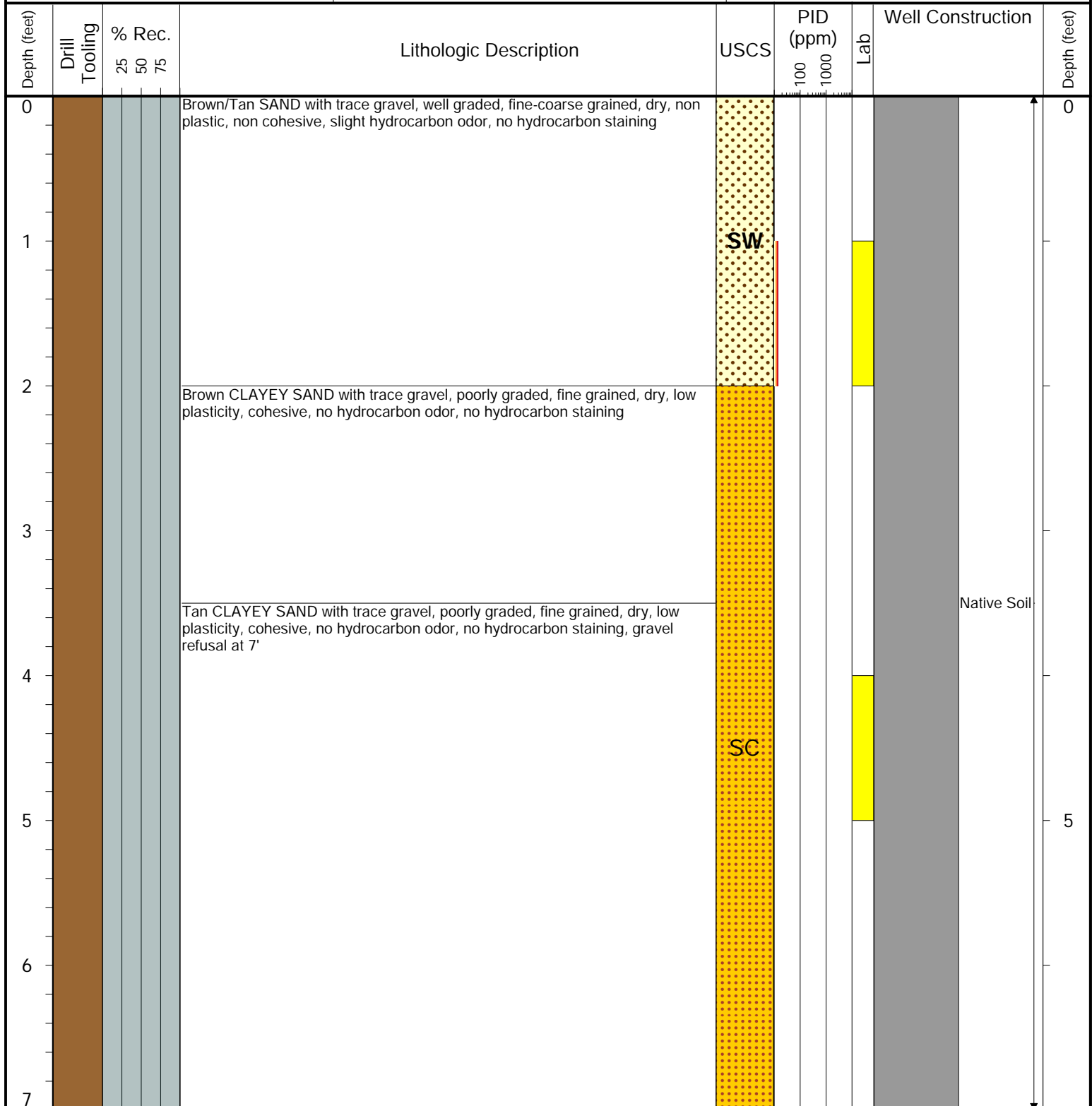
Geotechnical Lab  
 Analytical Chemistry Lab  
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TASMAN

6855 W. 119th Ave  
Broomfield, CO 80020

CLIENT: Extraction Oil & Gas INC	SITE NAME: Mickey 5-F SEP Facility ID: 430411
LOGGED BY: Daniel Hensel	SOIL BORING ID: DEL-V01
PROJECT MANAGER: Sam Vogt	LOCATION: SWNE Sec. 5-T6N-R67W
DRILLING CONTRACTOR: Tasman, INC.	LATITUDE (WGS 84): 40.513694
DRILLING EQUIPMENT: HydroVac/Hand Auger	LONGITUDE (WGS 84): -104.923504
DRILL BIT SIZE (INCHES): 3.25"	TOTAL WELL DEPTH (FT. BGS): 7
DATE STARTED - COMPLETED: 04/04/24-04/04/24	DEPTH TO WATER (FT. BGS): N/A



Drilling / Sample Method:

Direct Push Technology  
 Hollow Stem Auger  
 Hydrovac  
 Hand Auger  
 Hydrovac / Hand Auger

Laboratory Sample Types:

Geotechnical Lab  
 Analytical Chemistry Lab  
 Geotechnical & Analytical Chemistry Lab



# TASMAN

6855 W. 119th Ave  
Broomfield, CO 80020

<b>CLIENT:</b> Extraction Oil & Gas INC	<b>SITE NAME:</b> Mickey 5-F SEP Facility ID: 430411
<b>LOGGED BY:</b> Daniel Hensel	<b>SOIL BORING ID:</b> DEL-W01
<b>PROJECT MANAGER:</b> Sam Vogt	
<b>DRILLING CONTRACTOR:</b> Tasman, INC.	<b>LOCATION:</b> SWNE Sec. 5-T6N-R67W
<b>DRILLING EQUIPMENT:</b> HydroVac/Hand Auger	<b>LATITUDE (WGS 84):</b> 40.51368
<b>DRILL BIT SIZE (INCHES):</b> 3.25"	<b>LONGITUDE (WGS 84):</b> -104.923595
<b>DATE STARTED - COMPLETED:</b> 04/04/24-04/04/24	<b>TOTAL WELL DEPTH (FT. BGS):</b> 5
	<b>DEPTH TO WATER (FT. BGS):</b> N/A ▼

Depth (feet)	Drill Tooling	% Rec. 25 50 75	Lithologic Description	USCS	PID (ppm)		Lab	Well Construction	Depth (feet)
					100	1000			
0			Brown/Tan SAND with little/some gravel and trace silt, well graded, fine-coarse grained, dry, non plastic, non cohesive, no hydrocarbon odor, no hydrocarbon staining	SW					0
1			Dark Brown CLAYEY SAND with trace gravel, poorly graded, fine grained, dry, low plasticity, cohesive, no hydrocarbon odor, no hydrocarbon staining						
2									
3			Tan CLAYEY SAND with trace gravel, poorly graded, fine grained, dry, low plasticity, cohesive, no hydrocarbon odor, no hydrocarbon staining	SC				Native Soil	
4									
5									5

#### Drilling / Sample Method:

Direct Push Technology  
 Hollow Stem Auger  
 Hydrovac  
 Hand Auger  
 Hydrovac / Hand Auger

#### Laboratory Sample Types:

Geotechnical Lab  
 Analytical Chemistry Lab  
 Geotechnical & Analytical Chemistry Lab

## **FIELD NOTES AND PHOTO LOG**



SITE NAME: Mickey 5-F SEP								DATE: 4/4/2024	Facility/Location ID: 430411	WEATHER: 60F, Sunny	
SITE DIRECTIONS: CR 15 & CR 74, S 1670FT ON CR 15, SE 1000FT ON OLD CR 15, E 560 FT, SE/ APX 900FT INTO								CLIENT: Extraction Oil & Gas, Inc.			
LEGALS AND LAT/LONG: 40.513681, -104.923404								TASMAN PERSONNEL: Daniel Hensel			
SOIL TYPES: SC - clayey sand								SURFACE GRADIENT: West			
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)			
4/4/2024 09:00	DEL-V01@1'	13.9	No Staining	Slight HC Od	Y	SW	Y	Produced Water Vessel (PWV)			
4/4/2024 09:15	DEL-V01@5'	0.2	No Staining	No Odor	Y	SC	Y	Separator (SEP)			
4/4/2024 09:30	DEL-V01@7'	0.0	No Staining	No Odor	Y	SC	Y	Emission Control Device (ECD)			
4/4/2024 09:45	DEL-S01@1'	0.2	No Staining	No Odor	Y	SW	Y	Dump Line (DL)			
4/4/2024 10:00	DEL-S01@5'	0.0	No Staining	No Odor	Y	SC	Y	Wellhead (WH)			
4/4/2024 10:10	DEL-W01@1'	0.1	No Staining	No Odor	Y	SW	Y	Flowline (FL)			
4/4/2024 10:20	DEL-W01@5'	0.1	No Staining	No Odor	Y	SC	Y	FL Method of Closure			
4/4/2024 10:30	DEL-E01@1'	0.2	No Staining	No Odor	Y	SW	Y	FL Footage Removed			
4/4/2024 10:40	DEL-E01@5'	0.2	No Staining	No Odor	Y	SC	Y	Footaged Abandoned in Place			
4/4/2024 10:50	DEL-N01@1'	0.1	No Staining	No Odor	Y	SW	Y	Other:			
4/4/2024 11:00	DEL-N01@5'	0.0	No Staining	No Odor	Y	SC	Y	Soil Loads Removed			
								IMPACTED SOIL IDENTIFIED? Yes			
								ESTIMATED VOLUME OF IMPACTS: Ongoing investigation			
								Date		Number	CY
								Total Removed		0	0
								Disposal Facility:			
								Groundwater Recovery			
								DATE GW ENCOUNTERED: N/A		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:		Equipment ID:		Equipment Type:	
Material:		Volume:		Material:		Volume:	
Contents:				Contents:			
Notes/Conditions: Surrounding land use, facing N				Notes/Conditions: Surrounding land use, facing S			





## Photographic Log

☼ 89°E (T) ● 40°30'49"N, 104°55'23"W ±16ft ▲ 4881ft			☼ 271°W (T) ● 40°30'49"N, 104°55'23"W ±13ft ▲ 4881ft				
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:		Volume:		Material:		Volume:	
Contents:				Contents:			
Notes/Conditions: Surrounding land use, facing E				Notes/Conditions: Surrounding land use, facing W			



## Photographic Log

<table border="1"> <tr> <td colspan="2">Equipment ID:</td> <td colspan="2">Equipment Type:</td> </tr> <tr> <td>Material:</td> <td>Volume:</td> <td colspan="2">Contents:</td> </tr> </table>	Equipment ID:		Equipment Type:		Material:	Volume:	Contents:		<table border="1"> <tr> <td colspan="2">Equipment ID:</td> <td colspan="2">Equipment Type:</td> </tr> <tr> <td>Material:</td> <td>Volume:</td> <td colspan="2">Contents:</td> </tr> </table>	Equipment ID:		Equipment Type:		Material:	Volume:	Contents:	
Equipment ID:		Equipment Type:															
Material:	Volume:	Contents:															
Equipment ID:		Equipment Type:															
Material:	Volume:	Contents:															
<b>Notes/Conditions:</b> Soil sampling location	<b>Notes/Conditions:</b> Soil sampling location																





## Photographic Log

 <p>147°SE (T) 40°30'49"N, 104°55'24"W ±16ft ▲ 4875ft</p> <p>04 Apr 2024, 11:18:51</p>			 <p>167°S (T) 40°30'49"N, 104°55'24"W ±16ft ▲ 4874ft</p> <p>04 Apr 2024, 11:19:18</p>				
Equipment ID:		Equipment Type:		Equipment ID:		Equipment Type:	
Material:		Volume:		Material:		Volume:	
Contents:				Contents:			
Notes/Conditions: Soil sampling location				Notes/Conditions: Soil sampling location			

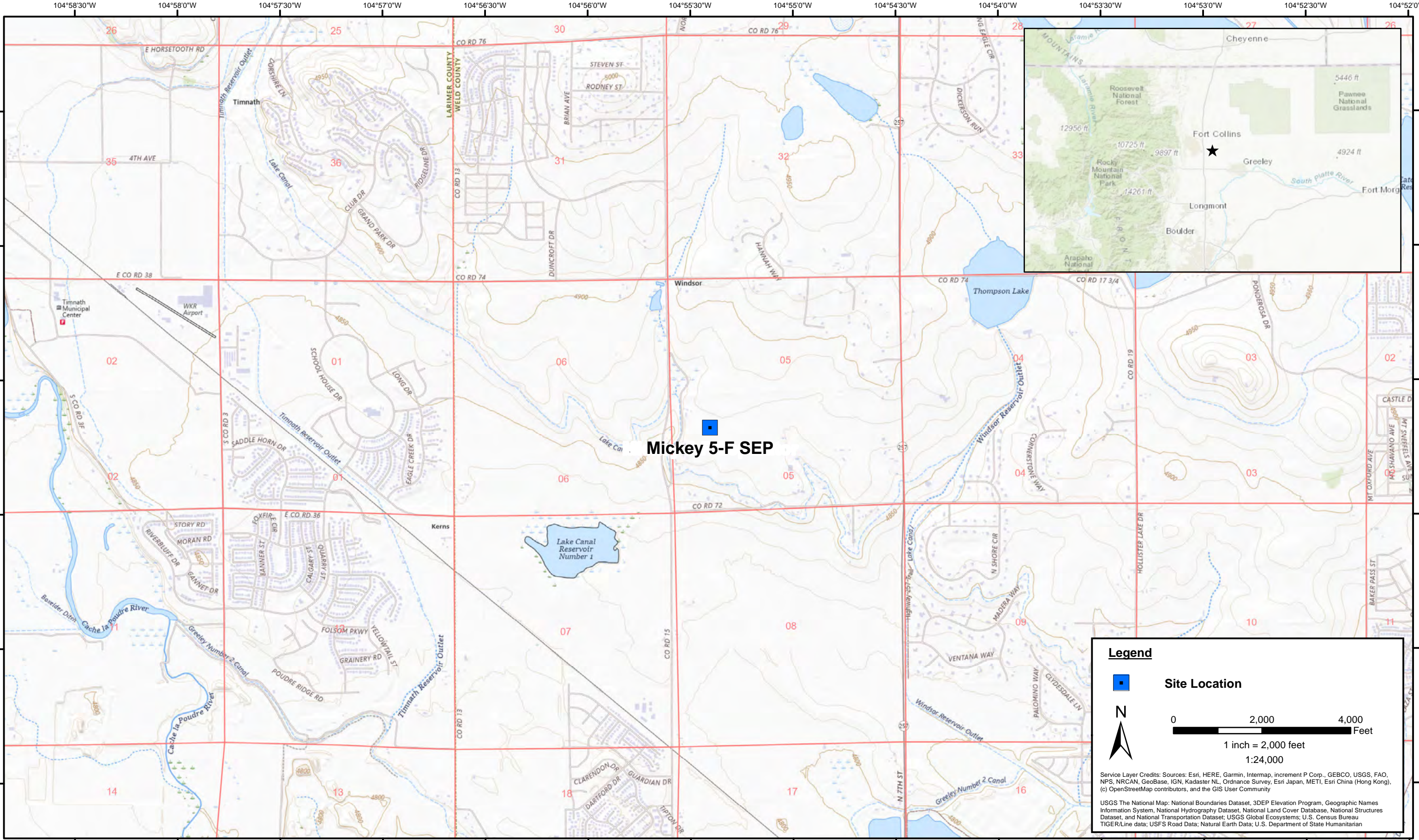


## Photographic Log

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

## FIGURES





DATE:	May 2024
DESIGNED BY:	S. Vogt
DRAWN BY:	L. Reed



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

**Extraction Oil & Gas, Inc.**  
**Mickey 5-F SEP**  
SWNE Sec. 5-T6N-R67W  
Weld County, Colorado

Site Location Map

Figure  
1





DATE:	May 23, 2024
DESIGNED BY:	S. Vogt
DRAWN BY:	L. Bakel



**Tasman, Inc.**  
6855 W119th Ave.  
Broomfield, CO 80020

**Extraction Oil & Gas, Inc.**  
**Mickey 5-F SEP**  
SWNE Sec. 5-T6N-R67W  
Weld County, Colorado

Soil Sample Location Map  
(02/25/2024)

Figure  
2A





DATE:	May 23, 2024
DESIGNED BY:	S. Vogt
DRAWN BY:	L. Bakel



**Tasman, Inc.**  
6855 W119th Ave.  
Broomfield, CO 80020

**Extraction Oil & Gas, Inc.**  
**Mickey 5-F SEP**  
SWNE Sec. 5-T6N-R67W  
Weld County, Colorado

Delineation Soil Sample  
Location Map  
(04/04/2024)

Figure  
2B



## **TABLES**

**TABLE 1**  
**MICKEY 5-F SEP**  
**SOIL SAMPLE LOCATIONS**  
**EXTRACTION OIL & GAS, INC**



Soil Sample Location	Depth	Date	PID Reading (ppm)	Latitude	Longitude	GPS PDOP Value	Lab (Y/N)
WC-01	0-6"	02/25/2024	-	40.513667	-104.923515	-	Y
WCBK-01	0-6"	02/25/2024	-	40.514166	-104.923323	-	Y
DEL-V01@1'	1'	04/04/2024	13.9	40.513695	-104.923504	1.1	Y
DEL-V01@5'	5'	04/04/2024	0.2	40.513695	-104.923504	1.1	Y
DEL-V01@7'	7'	04/04/2024	0.0	40.513695	-104.923504	1.1	Y
DEL-S01@1'	1'	04/04/2024	0.2	40.513624	-104.923430	1	Y
DEL-S01@5'	5'	04/04/2024	0.0	40.513624	-104.923430	1	Y
DEL-W01@1'	1'	04/04/2024	0.1	40.513681	-104.923596	1	Y
DEL-W01@5'	5'	04/04/2024	0.1	40.513681	-104.923596	1	Y
DEL-E01@1'	1'	04/04/2024	0.2	40.513670	-104.923396	1.1	Y
DEL-E01@5'	5'	04/04/2024	0.2	40.513670	-104.923396	1.1	Y
DEL-N01@1'	1'	04/04/2024	0.1	40.513737	-104.923459	1.1	Y
DEL-N01@5'	5'	04/04/2024	0.0	40.513737	-104.923459	1.1	Y

**Notes:**

PID = Photoionization Detector

ppm = parts per million

GPS = Global Positioning System

PDOP = Position Dilution of Precision

- = Not Applicable

10/29/2024 [date] = Data collected by Extraction Oil & Gas Inc

**TABLE 2**  
**MICKEY 5-F SEP**  
**SOIL ANALYTICAL DATA - VOCs**  
**EXTRACTION OIL & GAS, INC**

Soil Sample Location	Depth	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)
ECMC Organic Compounds in Soils - GSSL <sup>(1)</sup>			0.0026	0.69	0.78	9.9	0.0038	500			0.0081	0.0087
ECMC Organic Compounds in Soils - RSL <sup>(2)</sup>			1.2	490	5.8	58	2	500			30	27
WC-01	0-6"	02/25/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-V01@1'	1'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-V01@5'	5'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-V01@7'	7'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-S01@1'	1'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-S01@5'	5'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-W01@1'	1'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-W01@5'	5'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-E01@1'	1'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-E01@5'	5'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-N01@1'	1'	04/04/2024	<0.0020	<0.0050	<0.0050	<0.010	<0.0038	<0.50	<50	<50	<0.0050	<0.0050
DEL-N01@5'	5'	04/04/2024	<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 = milligrams per kilogram

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

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

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

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

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

**BOLD** = Analytical result is in exceedance of 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

10/29/2024 [date] = Data collected by Extraction Oil & Gas Inc

**TABLE 3**  
**MICKEY 5-F SEP**  
**SOIL ANALYTICAL DATA - PAHs**  
**EXTRACTION OIL & GAS, INC**

Soil Sample Location	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
ECMC Organic Compounds in Soils - GSSL <sup>(1)</sup>			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
ECMC Organic Compounds in Soils - RSL <sup>(2)</sup>			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180
WC-01	0-6"	02/25/2024	<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
DEL-V01@1'	1'	04/04/2024	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00573	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
DEL-V01@5'	5'	04/04/2024	<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
DEL-V01@7'	7'	04/04/2024	<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
DEL-S01@1'	1'	04/04/2024	<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
DEL-S01@5'	5'	04/04/2024	<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
DEL-W01@1'	1'	04/04/2024	<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
DEL-W01@5'	5'	04/04/2024	<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
DEL-E01@1'	1'	04/04/2024	<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
DEL-E01@5'	5'	04/04/2024	<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
DEL-N01@1'	1'	04/04/2024	<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
DEL-N01@5'	5'	04/04/2024	<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 = Dibenzo(a,h)Anthracene

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

1-M = 1-Methylnaphthalene

2-M = 2-Methylnaphthalene

**BOLD** = Analytical result is in exceedance of 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**  
**MICKEY 5-F SEP**  
**SOIL ANALYTICAL DATA - PAHs**  
**EXTRACTION OIL & GAS, INC**

Soil Sample Location	Depth	Date	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)A (mg/kg)	Benzo(b)F (mg/kg)	Benzo(k)F (mg/kg)	Benzo(a)P (mg/kg)	Chrysene (mg/kg)	D (a,h) A (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	Pyrene (mg/kg)
ECMC Organic Compounds in Soils - GSSL <sup>(1)</sup>			0.55	5.8	0.011	0.3	2.9	0.24	9	0.96	8.9	0.54	0.98	0.006	0.019	1.3
ECMC Organic Compounds in Soils - RSL <sup>(2)</sup>			360	1,800	1.1	1.1	11	0.11	110	0.11	240	240	1.1	18	24	180

10/29/2024 [date] = Data collected by Extraction Oil & Gas Inc

**TABLE 4**  
**MICKEY 5-F SEP**  
**SOIL ANALYTICAL DATA - METALS**  
**EXTRACTION OIL & GAS, INC**

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 <sup>(1)</sup>			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
ECMC Metals in Soils - RSL <sup>(2)</sup>			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
WC-01	0-6"	02/25/2024	3.56*	101*	0.218	<0.30	4.70	5.35	3.59	<0.260	<0.0200	41.5
BACKGROUND												
WCBK-01	0-6"	02/25/2024	3.52	111	0.214	<0.30	6.01	7.37	6.77	1.10	0.0400	24.7
Highest Background @ 0-6" x1.25			4.40	139	0.268	-	7.51	9.21	8.46	1.38	0.0500	30.88

**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

**Highest background concentration x1.25**

*Italics* = Laboratory minimum detection limit exceeds the ECMC Table 915-1 Standard

\* Result exceeded the ECMC Table 915-1 standard, but was within site-specific 1.25x background multiplier level:

10/29/2024 [date] = Data collected by Extraction Oil & Gas Inc



TABLE 5  
MICKEY 5-F SEP



SOIL ANALYTICAL DATA - SOIL RECLAMATION  
EXTRACTION OIL & GAS, INC

Soil Sample Location	Depth	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
ECMC Soil Suitability for Reclamation <sup>(1)</sup>			6 - 8.3	< 6	< 4	2
WC-01	0-6"	02/25/2024	7.11	26.6	0.0393	<2.00
DEL-V01@1'	1'	04/04/2024	-	10.2	-	-
DEL-V01@5'	5'	04/04/2024	-	2.38	-	-
DEL-V01@7'	7'	04/04/2024	-	3.26	-	-
DEL-S01@1'	1'	04/04/2024	-	0.606	-	-
DEL-S01@5'	5'	04/04/2024	-	0.815	-	-
DEL-W01@1'	1'	04/04/2024	-	1.92	-	-
DEL-W01@5'	5'	04/04/2024	-	1.31	-	-
DEL-E01@1'	1'	04/04/2024	-	0.227	-	-
DEL-E01@5'	5'	04/04/2024	-	0.381	-	-
DEL-N01@1'	1'	04/04/2024	-	0.0851	-	-
DEL-N01@5'	5'	04/04/2024	-	0.783	-	-
BACKGROUND						
WCBK-01	0-6"	02/25/2024	8.90	0.116	0.235	<2.00
Highest Background @ 0-6"			8.90	0.116	0.235	-

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

**Highest background concentration**

10/29/2024 [date] = Data collected by Extraction Oil & Gas Inc

## **LABORATORY ANALYTICAL DATA**

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 14, 2024

Costin McQueen  
Civitas Resources  
650 Southgate Drive  
Windsor, CO 80550

RE: Mickey #7

Work Order #2402469

Enclosed are the results of analyses for samples received by Summit Scientific on 02/27/24 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Mikayla Axtell", is written over a light gray rectangular background.

Mikayla Axtell For Paul Shrewsbury  
President



Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]

Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC-01	2402469-01	Soil	02/25/24 15:30	02/27/24 16:30
WCBK-01	2402469-02	Soil	02/25/24 15:40	02/27/24 16:30

Summit Scientific

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

Client: <u>Civitas Resources</u>		Send Data To:		Send Invoice To:	
Address: <u>650 Southgate Dr</u>		Project Manager: <u>Costin McQueen</u>		Company: <u>Civitas</u>	
City/State/Zip: <u>Windsor, CO 80550</u>		E-Mail: <u>C.McQueen@Civitasresources.com</u>		Project Name/Location: <u>Mickey #7</u>	
Phone: <u>720-438-9064</u>		C.Frost@Civitasresources.com		AFE#: <u>C/C: COX0920</u>	
Sampler Name: <u>Con Frost</u>		Project Name: <u>Mickey #7</u>		PO/Billing Codes: <u>m/m: 8520.162</u>	
		Project Number:		Contact: <u>Costin McQueen</u>	

					Preservative				Matrix				Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other										
1	WC-01	2-25-24	3:30 pm	2						X												Full 915
2	WCBK-01	2-25-24	3:40 pm	2						X												915 metals, EC, SAR, PH, Barom
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days	Field DO	Notes:
<u>Con Frost</u>	<u>2-26-24/5:30 pm</u>			Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
<u>SL</u>	<u>2/27/24</u> <u>1030</u>	<u>[Signature]</u>	<u>2/27/24</u> <u>1030</u>	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: <u>6.6</u>	Corrected Temperature: <u>e</u>	IR gun #: <u>1</u>	HNO3 lot #: _____			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2402469Client: CintasClient Project ID: Mickey #7Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐

Airbill #: \_\_\_\_\_

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply)

Air

☐

Soil/Solid

☐

Water

☐

Other

☐

Temp (°C)

Thermometer #

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

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

2/27/24  
 Date/Time



Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**WC-01**  
**2402469-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHB0859	02/27/24	02/27/24	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: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0336	84.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHB0862	02/27/24	02/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.6	109 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**WC-01**  
**2402469-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHB0879	02/28/24	02/28/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.00573</b>	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: **02/25/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0243	72.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0204	61.2 %	40-150		"	"	"	"	

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

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHC0181	03/07/24	03/11/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**WC-01**  
**2402469-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.56	0.200	mg/kg dry	1	BHC0007	03/01/24	03/04/24	EPA 6020B
Barium	101	0.400	"	"	"	"	"	"
Cadmium	0.218	0.200	"	"	"	"	"	"
Copper	4.70	0.400	"	"	"	"	"	"
Lead	5.35	0.200	"	"	"	"	"	"
Nickel	3.59	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	41.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0305	03/12/24	03/13/24	EPA 7196A	

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

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	2640	0.0500	mg/L dry	1	BHB0864	02/27/24	03/01/24	EPA 6020B	
Magnesium	273	0.0500	"	"	"	"	"	"	
Sodium	5360	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	26.6	0.00100	units	1	BHC0151	03/06/24	03/06/24	Calculation	

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

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7  
Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**WC-01**  
**2402469-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.0		%	1	BHC0072	03/05/24	03/05/24	Calculation	

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

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0393	0.0100	mmhos/cm	1	BHB0866	02/27/24	02/28/24	EPA 120.1	

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

Date Sampled: **02/25/24 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.11		pH Units	1	BHB0867	02/27/24	02/28/24	EPA 9045D	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**WCBK-01**  
**2402469-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0181	03/07/24	03/11/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.52	0.200		mg/kg dry	1	BHC0007	03/01/24	03/04/24	EPA 6020B	
Barium	111	0.400		"	"	"	"	"	"	
Cadmium	0.214	0.200		"	"	"	"	"	"	
Copper	6.01	0.400		"	"	"	"	"	"	
Lead	7.37	0.200		"	"	"	"	"	"	
Nickel	6.77	0.400		"	"	"	"	"	"	
Silver	0.0400	0.0200		"	"	"	"	"	"	
Zinc	24.7	0.400		"	"	"	"	"	"	
Selenium	1.10	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0305	03/12/24	03/13/24	EPA 7196A	

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

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	284	0.0500		mg/L dry	1	BHB0864	02/27/24	03/01/24	EPA 6020B	
Magnesium	36.3	0.0500		"	"	"	"	"	"	
Sodium	7.84	0.0500		"	"	"	"	"	"	

**Calculated Analysis**

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Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**WCBK-01**  
**2402469-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.116	0.00100	units	1	BHC0151	03/06/24	03/06/24	Calculation	

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

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BHC0072	03/05/24	03/05/24	Calculation	

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

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.235	0.0100	mmhos/cm	1	BHB0866	02/27/24	02/28/24	EPA 120.1	

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

Date Sampled: **02/25/24 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.90		pH Units	1	BHB0867	02/27/24	02/28/24	EPA 9045D	

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Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BHB0859 - EPA 5030 Soil MS

##### Blank (BHB0859-BLK1)

Prepared: 02/27/24 Analyzed: 02/28/24

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	0.0345		"	0.0400		86.2	50-150			
Surrogate: Toluene-d8	0.0431		"	0.0400		108	50-150			
Surrogate: 4-Bromofluorobenzene	0.0416		"	0.0400		104	50-150			

##### LCS (BHB0859-BS1)

Prepared: 02/27/24 Analyzed: 02/28/24

Benzene	0.0910	0.0020	mg/kg	0.100		91.0	70-130			
Toluene	0.0913	0.0050	"	0.100		91.3	70-130			
Ethylbenzene	0.0901	0.0050	"	0.100		90.1	70-130			
m,p-Xylene	0.171	0.010	"	0.200		85.7	70-130			
o-Xylene	0.0860	0.0050	"	0.100		86.0	70-130			
1,2,4-Trimethylbenzene	0.0846	0.0050	"	0.100		84.6	70-130			
1,3,5-Trimethylbenzene	0.0806	0.0050	"	0.100		80.6	70-130			
Naphthalene	0.101	0.0038	"	0.100		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0326		"	0.0400		81.4	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.6	50-150			

##### Matrix Spike (BHB0859-MS1)

Source: 2402467-01

Prepared: 02/27/24 Analyzed: 02/28/24

Benzene	0.0851	0.0020	mg/kg	0.100	ND	85.1	70-130			
Toluene	0.0852	0.0050	"	0.100	ND	85.2	70-130			
Ethylbenzene	0.0832	0.0050	"	0.100	ND	83.2	70-130			
m,p-Xylene	0.158	0.010	"	0.200	ND	79.1	70-130			
o-Xylene	0.0801	0.0050	"	0.100	ND	80.1	70-130			
1,2,4-Trimethylbenzene	0.0777	0.0050	"	0.100	ND	77.7	70-130			
1,3,5-Trimethylbenzene	0.0748	0.0050	"	0.100	ND	74.8	70-130			
Naphthalene	0.0946	0.0038	"	0.100	ND	94.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0334		"	0.0400		83.5	50-150			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	50-150			

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

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

**Batch BHB0859 - EPA 5030 Soil MS**

Matrix Spike Dup (BHB0859-MSD1)		Source: 2402467-01			Prepared: 02/27/24 Analyzed: 02/28/24					
Benzene	0.0833	0.0020	mg/kg	0.100	ND	83.3	70-130	2.21	30	
Toluene	0.0838	0.0050	"	0.100	ND	83.8	70-130	1.63	30	
Ethylbenzene	0.0819	0.0050	"	0.100	ND	81.9	70-130	1.60	30	
m,p-Xylene	0.156	0.010	"	0.200	ND	77.9	70-130	1.51	30	
o-Xylene	0.0797	0.0050	"	0.100	ND	79.7	70-130	0.526	30	
1,2,4-Trimethylbenzene	0.0779	0.0050	"	0.100	ND	77.9	70-130	0.347	30	
1,3,5-Trimethylbenzene	0.0743	0.0050	"	0.100	ND	74.3	70-130	0.724	30	
Naphthalene	0.0901	0.0038	"	0.100	ND	90.1	70-130	4.94	30	
Surrogate: 1,2-Dichloroethane-d4		0.0327	"	0.0400		81.7	50-150			
Surrogate: Toluene-d8		0.0406	"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene		0.0404	"	0.0400		101	50-150			

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**Reported:**  
03/14/24 07:27

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BHB0862 - EPA 3550A**

**Blank (BHB0862-BLK1)**

Prepared: 02/27/24 Analyzed: 02/28/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	10.6		"	12.5		85.1	30-150			

**LCS (BHB0862-BS1)**

Prepared: 02/27/24 Analyzed: 02/28/24

C10-C28 (DRO)	509	50	mg/kg	500		102	70-130			
Surrogate: o-Terphenyl	10.1		"	12.5		81.1	30-150			

**Matrix Spike (BHB0862-MS1)**

Source: 2402467-01

Prepared: 02/27/24 Analyzed: 02/28/24

C10-C28 (DRO)	506	50	mg/kg	500	17.1	97.9	70-130			
Surrogate: o-Terphenyl	15.8		"	12.5		126	30-150			

**Matrix Spike Dup (BHB0862-MSD1)**

Source: 2402467-01

Prepared: 02/27/24 Analyzed: 02/28/24

C10-C28 (DRO)	500	50	mg/kg	500	17.1	96.6	70-130	1.23	20	
Surrogate: o-Terphenyl	16.3		"	12.5		130	30-150			

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**Reported:**  
03/14/24 07:27

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BHB0879 - EPA 5030 Soil MS

##### Blank (BHB0879-BLK1)

Prepared & Analyzed: 02/28/24

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	"							
Surrogate: 2-Methylnaphthalene-d10	0.0372		"	0.0333		112	40-150			
Surrogate: Fluoranthene-d10	0.0237		"	0.0333		71.1	40-150			

##### LCS (BHB0879-BS1)

Prepared & Analyzed: 02/28/24

Acenaphthene	0.0378	0.00500	mg/kg	0.0333		113	31-137			
Anthracene	0.0390	0.00500	"	0.0333		117	30-120			
Benzo (a) anthracene	0.0330	0.00500	"	0.0333		99.1	30-120			
Benzo (a) pyrene	0.0321	0.00500	"	0.0333		96.3	30-120			
Benzo (b) fluoranthene	0.0321	0.00500	"	0.0333		96.4	30-120			
Benzo (k) fluoranthene	0.0380	0.00500	"	0.0333		114	30-120			
Chrysene	0.0386	0.00500	"	0.0333		116	30-120			
Dibenz (a,h) anthracene	0.0259	0.00500	"	0.0333		77.8	30-120			
Fluoranthene	0.0363	0.00500	"	0.0333		109	30-120			
Fluorene	0.0378	0.00500	"	0.0333		114	30-120			
Indeno (1,2,3-cd) pyrene	0.0257	0.00500	"	0.0333		77.0	30-120			
Pyrene	0.0404	0.00500	"	0.0333		121	35-142			
1-Methylnaphthalene	0.0311	0.00500	"	0.0333		93.4	35-142			
2-Methylnaphthalene	0.0420	0.00500	"	0.0333		126	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0195		"	0.0333		58.4	40-150			
Surrogate: Fluoranthene-d10	0.0260		"	0.0333		78.1	40-150			

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Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

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03/14/24 07:27

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BHB0879 - EPA 5030 Soil MS

##### Matrix Spike (BHB0879-MS1)

Source: 2402467-01

Prepared & Analyzed: 02/28/24

Acenaphthene	0.0160	0.00500	mg/kg	0.0333	ND	47.9	31-137		
Anthracene	0.0193	0.00500	"	0.0333	ND	58.0	30-120		
Benzo (a) anthracene	0.0182	0.00500	"	0.0333	ND	54.6	30-120		
Benzo (a) pyrene	0.0179	0.00500	"	0.0333	ND	53.7	30-120		
Benzo (b) fluoranthene	0.0149	0.00500	"	0.0333	ND	44.8	30-120		
Benzo (k) fluoranthene	0.0166	0.00500	"	0.0333	ND	49.9	30-120		
Chrysene	0.0188	0.00500	"	0.0333	ND	56.4	30-120		
Dibenz (a,h) anthracene	0.0149	0.00500	"	0.0333	ND	44.7	30-120		
Fluoranthene	0.0186	0.00500	"	0.0333	ND	55.9	30-120		
Fluorene	0.0173	0.00500	"	0.0333	ND	51.8	30-120		
Indeno (1,2,3-cd) pyrene	0.0144	0.00500	"	0.0333	ND	43.3	30-120		
Pyrene	0.0203	0.00500	"	0.0333	ND	60.9	35-142		
1-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.2	15-130		
2-Methylnaphthalene	0.0191	0.00500	"	0.0333	ND	57.4	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0158		"	0.0333		47.3	40-150		
Surrogate: Fluoranthene-d10	0.0134		"	0.0333		40.1	40-150		

##### Matrix Spike Dup (BHB0879-MSD1)

Source: 2402467-01

Prepared & Analyzed: 02/28/24

Acenaphthene	0.0177	0.00500	mg/kg	0.0333	ND	53.0	31-137	10.1	30
Anthracene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	10.1	30
Benzo (a) anthracene	0.0201	0.00500	"	0.0333	ND	60.3	30-120	9.92	30
Benzo (a) pyrene	0.0195	0.00500	"	0.0333	ND	58.4	30-120	8.36	30
Benzo (b) fluoranthene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	9.03	30
Benzo (k) fluoranthene	0.0178	0.00500	"	0.0333	ND	53.4	30-120	6.77	30
Chrysene	0.0201	0.00500	"	0.0333	ND	60.4	30-120	6.92	30
Dibenz (a,h) anthracene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	9.81	30
Fluoranthene	0.0200	0.00500	"	0.0333	ND	60.0	30-120	7.02	30
Fluorene	0.0186	0.00500	"	0.0333	ND	55.9	30-120	7.62	30
Indeno (1,2,3-cd) pyrene	0.0157	0.00500	"	0.0333	ND	47.2	30-120	8.69	30
Pyrene	0.0213	0.00500	"	0.0333	ND	63.8	35-142	4.63	30
1-Methylnaphthalene	0.0144	0.00500	"	0.0333	ND	43.3	15-130	29.3	50
2-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.8	15-130	8.41	50
Surrogate: 2-Methylnaphthalene-d10	0.0142		"	0.0333		42.7	40-150		
Surrogate: Fluoranthene-d10	0.0146		"	0.0333		43.8	40-150		

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Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

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

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

**Batch BHC0181 - EPA 3050B**

**Blank (BHC0181-BLK1)**

Prepared: 03/07/24 Analyzed: 03/11/24

Boron ND 2.00 mg/L

**LCS (BHC0181-BS1)**

Prepared: 03/07/24 Analyzed: 03/11/24

Boron 4.68 2.00 mg/L 5.00 93.6 80-120

**Duplicate (BHC0181-DUP1)**

**Source: 2402448-01**

Prepared: 03/07/24 Analyzed: 03/11/24

Boron ND 2.00 mg/L 0.0120 200 20 QR-01

**Matrix Spike (BHC0181-MS1)**

**Source: 2402448-01**

Prepared: 03/07/24 Analyzed: 03/11/24

Boron 4.52 2.00 mg/L 5.00 0.0120 90.2 75-125

**Matrix Spike Dup (BHC0181-MSD1)**

**Source: 2402448-01**

Prepared: 03/07/24 Analyzed: 03/11/24

Boron 4.40 2.00 mg/L 5.00 0.0120 87.8 75-125 2.69 25

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Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BHC0007 - EPA 3050B**

**Blank (BHC0007-BLK1)**

Prepared: 03/01/24 Analyzed: 03/04/24

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 (BHC0007-BS1)**

Prepared: 03/01/24 Analyzed: 03/04/24

Arsenic	44.6	0.200	mg/kg wet	40.0	112	80-120
Barium	44.1	0.400	"	40.0	110	80-120
Cadmium	2.03	0.200	"	2.00	102	80-120
Copper	39.6	0.400	"	40.0	99.0	80-120
Lead	20.1	0.200	"	20.0	100	80-120
Nickel	39.3	0.400	"	40.0	98.2	80-120
Silver	2.00	0.0200	"	2.00	100	80-120
Zinc	39.1	0.400	"	40.0	97.8	80-120
Selenium	4.74	0.260	"	4.00	119	80-120

**Duplicate (BHC0007-DUP1)**

Source: 2402396-01

Prepared: 03/01/24 Analyzed: 03/04/24

Arsenic	2.91	0.200	mg/kg dry	2.78	4.66	20
Barium	75.1	0.400	"	89.2	17.2	20
Cadmium	0.113	0.200	"	0.102	10.1	20
Copper	2.45	0.400	"	2.49	1.68	20
Lead	6.40	0.200	"	5.93	7.70	20
Nickel	3.58	0.400	"	3.27	9.20	20
Silver	0.0312	0.0200	"	0.0308	1.46	20
Zinc	14.0	0.400	"	13.9	0.514	20
Selenium	ND	0.260	"	ND		20

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Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BHC0007 - EPA 3050B**

Matrix Spike (BHC0007-MS1)		Source: 2402396-01			Prepared: 03/01/24 Analyzed: 03/04/24					
Arsenic	49.3	0.200	mg/kg dry	45.3	2.78	103	75-125			
Barium	119	0.400	"	45.3	89.2	65.2	75-125			QM-05
Cadmium	2.37	0.200	"	2.26	0.102	100	75-125			
Copper	31.2	0.400	"	45.3	2.49	63.4	75-125			QM-05
Lead	28.5	0.200	"	22.6	5.93	99.8	75-125			
Nickel	32.2	0.400	"	45.3	3.27	63.8	75-125			QM-05
Silver	2.21	0.0200	"	2.26	0.0308	96.4	75-125			
Zinc	43.5	0.400	"	45.3	13.9	65.5	75-125			QM-05
Selenium	7.26	0.260	"	4.53	ND	160	75-125			QM-05

Matrix Spike Dup (BHC0007-MSD1)		Source: 2402396-01			Prepared: 03/01/24 Analyzed: 03/04/24					
Arsenic	49.8	0.200	mg/kg dry	45.3	2.78	104	75-125	1.06	25	
Barium	122	0.400	"	45.3	89.2	71.7	75-125	2.45	25	QM-05
Cadmium	2.44	0.200	"	2.26	0.102	103	75-125	3.05	25	
Copper	31.3	0.400	"	45.3	2.49	63.6	75-125	0.288	25	QM-05
Lead	29.4	0.200	"	22.6	5.93	104	75-125	2.98	25	
Nickel	32.3	0.400	"	45.3	3.27	64.2	75-125	0.491	25	QM-05
Silver	2.27	0.0200	"	2.26	0.0308	98.9	75-125	2.46	25	
Zinc	43.6	0.400	"	45.3	13.9	65.7	75-125	0.224	25	QM-05
Selenium	7.07	0.260	"	4.53	ND	156	75-125	2.55	25	QM-05

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.*



Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BHC0305 - 3060A Mod**

**Blank (BHC0305-BLK1)**

Prepared: 03/12/24 Analyzed: 03/13/24

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BHC0305-BS1)**

Prepared: 03/12/24 Analyzed: 03/13/24

Chromium, Hexavalent 25.3 0.30 mg/kg wet 25.0 101 80-120

**Duplicate (BHC0305-DUP1)**

**Source: 2402447-01**

Prepared: 03/12/24 Analyzed: 03/13/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BHC0305-MS1)**

**Source: 2402447-01**

Prepared: 03/12/24 Analyzed: 03/13/24

Chromium, Hexavalent 32.8 0.30 mg/kg dry 30.0 ND 109 75-125

**Matrix Spike Dup (BHC0305-MSD1)**

**Source: 2402447-01**

Prepared: 03/12/24 Analyzed: 03/13/24

Chromium, Hexavalent 32.9 0.30 mg/kg dry 30.0 ND 110 75-125 0.183 20

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

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

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

**Batch BHB0864 - General Preparation**

**Blank (BHB0864-BLK1)**

Prepared: 02/27/24 Analyzed: 03/01/24

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

**LCS (BHB0864-BS1)**

Prepared: 02/27/24 Analyzed: 03/01/24

Calcium	6.40	0.0500	mg/L wet	5.00	128	70-130
Magnesium	5.67	0.0500	"	5.00	113	70-130
Sodium	5.65	0.0500	"	5.00	113	70-130

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]

Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

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

**Summit Scientific**

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

**Batch BHC0072 - General Preparation**

Duplicate (BHC0072-DUP1)		Source: 2402366-01			Prepared & Analyzed: 03/05/24						
% Solids	93.1		%		93.4			0.318		20	

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

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

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

**Batch BHB0866 - General Preparation**

**Blank (BHB0866-BLK1)**

Prepared: 02/27/24 Analyzed: 02/28/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHB0866-BS1)**

Prepared: 02/27/24 Analyzed: 02/28/24

Specific Conductance (EC) 0.148 0.0100 mmhos/cm 0.150 98.9 95-105

**Duplicate (BHB0866-DUP1)**

**Source: 2402467-01**

Prepared: 02/27/24 Analyzed: 02/28/24

Specific Conductance (EC) 0.122 0.0100 mmhos/cm 0.124 1.14 20

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

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

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

**Batch BHB0867 - General Preparation**

**LCS (BHB0867-BS1)**

Prepared: 02/27/24 Analyzed: 02/28/24

pH	9.13	pH Units	9.18	99.5	95-105
----	------	----------	------	------	--------

**Duplicate (BHB0867-DUP1)**

Source: 2402467-01

Prepared: 02/27/24 Analyzed: 02/28/24

pH	8.75	pH Units	8.75	0.00	20
----	------	----------	------	------	----

Summit Scientific

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Civitas Resources  
650 Southgate Drive  
Windsor CO, 80550

Project: Mickey #7

Project Number: [none]  
Project Manager: Costin McQueen

**Reported:**  
03/14/24 07:27

### Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
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.
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

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 02, 2024

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

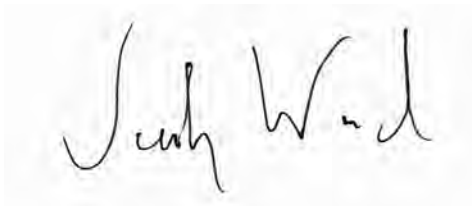
Broomfield, CO 80020

RE: Civitas - Mickey 5-F SEP

Work Order #2404076

Enclosed are the results of analyses for samples received by Summit Scientific on 04/04/24 17:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood", is written on a light gray background.

Jacob Wood For Paul Shrewsbury

President



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DEL-V01@1'	2404076-01	Soil	04/04/24 09:00	04/04/24 17:06
DEL-V01@5'	2404076-02	Soil	04/04/24 09:15	04/04/24 17:06
DEL-V01@7'	2404076-03	Soil	04/04/24 09:30	04/04/24 17:06
DEL-S01@1'	2404076-04	Soil	04/04/24 09:45	04/04/24 17:06
DEL-S01@5'	2404076-05	Soil	04/04/24 10:00	04/04/24 17:06
DEL-W01@1'	2404076-06	Soil	04/04/24 10:10	04/04/24 17:06
DEL-W01@5'	2404076-07	Soil	04/04/24 10:20	04/04/24 17:06
DEL-E01@1'	2404076-08	Soil	04/04/24 10:30	04/04/24 17:06
DEL-E01@5'	2404076-09	Soil	04/04/24 10:40	04/04/24 17:06
DEL-N01@1'	2404076-10	Soil	04/04/24 10:50	04/04/24 17:06
DEL-N01@5'	2404076-11	Soil	04/04/24 11:00	04/04/24 17:06

Summit Scientific

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

# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2404078	

Client: Civitas/Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W. 119th Ave		Project Manager: Sam Vogt/Jacob Evans		Company: Civitas	
City/State/Zip: Broomfield, CO 80020		E-Mail: svgot@tasman-geo.com; jevans@civiresources.com		Project Name/Location:	
Phone: PM (610) 405-9078		Project Name: Mickey 5-F SEP		APR: C/C: Cox 0920	
Sampler Name: Daniel Hense		Project Number:		PO/Billing Codes: 8528-102	
				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 TMBs	TPH (GRO, DRO, ORO)	PAHs	pH, EC, SAR	Boron	Metals			
1	DEL-V01 e 1'	4/4/24	9:00	2			X			X				X	X	X	X				X	pH, EC, SAR by Saturated paste preparation method Boron by Hot Water Soluble preparation Method Table 915 Metals - As, Ba, Cd, Cu, Pb, Ni, Se, Ag, Zn, Cr VI
2	DEL-V01 e 5'		9:15	1																		
3	DEL-V01 e 7'		9:30	1																		
4	DEL-S01 e 1'		9:45	1																		
5	DEL-S01 e 5'		10:00	1																		
6	DEL-W01 e 1'		10:10	1																		
7	DEL-W01 e 5'		10:20	1																		
8	DEL-E01 e 1'		10:30	1																		
9	DEL-E01 e 5'		10:40	1																		
10	DEL-N01 e 1'		10:50	1																		
11	DEL-N01 e 5'	✓	11:00	✓					✓				✓	✓	✓	✓				✓		
12																						
13																						
14																						
15																						

Relinquished by: <i>[Signature]</i> 4/4/24	Date/Time: 16:45	Received by: Tasman Lockbox	Date/Time: 16:45	TAT Business Days	Field DO	Notes:
Relinquished by: <i>[Signature]</i> 4/4/24	Date/Time: 17:00	Received by: <i>[Signature]</i>	Date/Time: 17:00	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 9.1	Corrected Temperature: 9	IR gun #: 1	HNO3 lot #:			

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2404076Client: CWAast (aman)Client Project ID: Mickey S-F SEPShipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply)

Air

☐

Soil

☒

Solid

☐

Water

☐

Other

☐

Temp (°C)

Thermometer #

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

Custodian Printed Name

Date/Time

AS

4/4/24



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@1'**  
**2404076-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	8.66	69.3 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@1'**  
**2404076-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0164	49.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.9 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	<b>207</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>58.2</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>646</b>	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@1'**  
**2404076-01 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.2	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.8		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@5'**  
**2404076-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0409	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0422	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.05	72.4 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@5'**  
**2404076-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0178	53.5 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	23.3	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	10.1	0.0500	"	"	"	"	"	"	
Sodium	54.6	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@5'**  
**2404076-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.38	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.0		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@7'**  
**2404076-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0402	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.04	72.3 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@7'**  
**2404076-03 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0190	57.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.0 %	40-150		"	"	"	"	

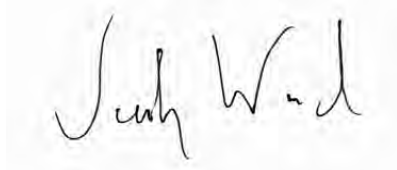
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>23.3</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>9.94</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>74.6</b>	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-V01@7'**  
**2404076-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.26	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.7		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@1'**  
**2404076-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0401	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0420	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.83	70.7 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@1'**  
**2404076-04 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/05/24	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: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0180	54.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.5 %	40-150		"	"	"	"	

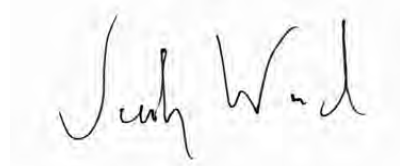
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	41.1	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	5.11	0.0500	"	"	"	"	"	"	
Sodium	15.5	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@1'**  
**2404076-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.606</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>92.3</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@5'**  
**2404076-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0394	98.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0415	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.94	79.5 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@5'**  
**2404076-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	49.0 %	40-150		"	"	"	"	

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

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	14.2	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	2.21	0.0500	"	"	"	"	"	"	
Sodium	12.5	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-S01@5'**  
**2404076-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.815</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>193</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@1'**  
**2404076-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0406	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.06	64.5 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@1'**  
**2404076-06 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0137	41.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0142	42.6 %	40-150		"	"	"	"	

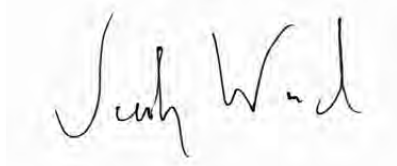
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	49.7	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	11.0	0.0500	"	"	"	"	"	"	
Sodium	57.3	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@1'**  
**2404076-06 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.92	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.1		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@5'**  
**2404076-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0389	97.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0416	104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.27	74.2 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@5'**  
**2404076-07 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0147	44.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0150	45.0 %	40-150		"	"	"	"	

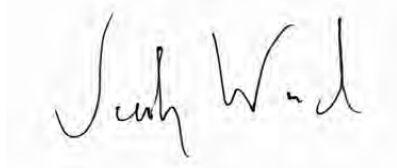
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.6	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	21.0	0.0500	"	"	"	"	"	"	
Sodium	42.8	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-W01@5'**  
**2404076-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.31	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@1'**  
**2404076-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/04/24	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: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	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: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.63	69.1 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@1'**  
**2404076-08 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0204	61.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0199	59.8 %	40-150		"	"	"	"	

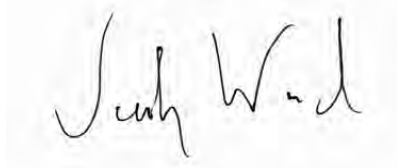
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>49.2</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>7.95</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>6.52</b>	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@1'**  
**2404076-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.227</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>88.8</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@5'**  
**2404076-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/05/24	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: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0368	92.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	8.72	69.8 %	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 - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@5'**  
**2404076-09 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0184	55.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.4 %	40-150		"	"	"	"	

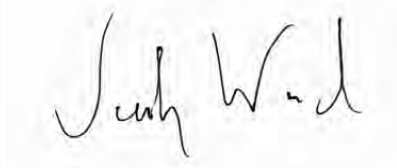
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>34.4</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>8.81</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>9.69</b>	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific



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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-E01@5'**  
**2404076-09 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.381</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>86.5</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@1'**  
**2404076-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/05/24	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: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0382	95.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.40	75.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@1'**  
**2404076-10 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0189	56.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0203	60.8 %	40-150		"	"	"	"	

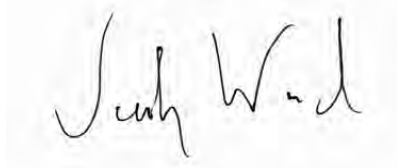
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>48.5</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>5.05</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>2.33</b>	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@1'**  
**2404076-10 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.0851</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>94.8</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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6855 W. 119th Ave.  
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Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@5'**  
**2404076-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHD0153	04/04/24	04/05/24	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: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0409	102 %	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: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0156	04/04/24	04/05/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.2	89.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@5'**  
**2404076-11 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0159	04/05/24	04/06/24	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: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0149	44.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0143	42.9 %	40-150		"	"	"	"	

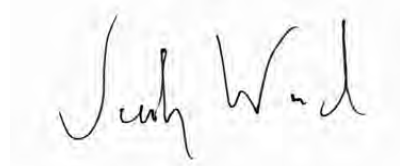
#### Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>101</b>	0.0500	mg/L dry	1	BHD0421	04/12/24	05/01/24	EPA 6020B	
Magnesium	<b>32.7</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>35.4</b>	0.0500	"	"	"	"	"	"	

#### Calculated Analysis

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**DEL-N01@5'**  
**2404076-11 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.783</b>	0.00100	units	1	BHE0055	05/02/24	05/02/24	Calculation	

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

Date Sampled: **04/04/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>84.5</b>		%	1	BHD0260	04/09/24	04/09/24	Calculation	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BHD0153 - EPA 5030 Soil MS

##### Blank (BHD0153-BLK1)

Prepared: 04/04/24 Analyzed: 04/05/24

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	0.0349		"	0.0400		87.3	50-150			
Surrogate: Toluene-d8	0.0435		"	0.0400		109	50-150			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	50-150			

##### LCS (BHD0153-BS1)

Prepared: 04/04/24 Analyzed: 04/05/24

Benzene	0.0955	0.0020	mg/kg	0.100		95.5	70-130			
Toluene	0.0957	0.0050	"	0.100		95.7	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.208	0.010	"	0.200		104	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130			
1,3,5-Trimethylbenzene	0.0992	0.0050	"	0.100		99.2	70-130			
Naphthalene	0.0960	0.0038	"	0.100		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.5	50-150			
Surrogate: Toluene-d8	0.0418		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.1	50-150			

##### Matrix Spike (BHD0153-MS1)

Source: 2404060-01

Prepared: 04/04/24 Analyzed: 04/05/24

Benzene	0.0831	0.0020	mg/kg	0.100	ND	83.1	70-130			
Toluene	0.0841	0.0050	"	0.100	ND	84.1	70-130			
Ethylbenzene	0.0916	0.0050	"	0.100	ND	91.6	70-130			
m,p-Xylene	0.180	0.010	"	0.200	ND	89.9	70-130			
o-Xylene	0.0901	0.0050	"	0.100	ND	90.1	70-130			
1,2,4-Trimethylbenzene	0.0882	0.0050	"	0.100	ND	88.2	70-130			
1,3,5-Trimethylbenzene	0.0900	0.0050	"	0.100	ND	90.0	70-130			
Naphthalene	0.0708	0.0038	"	0.100	ND	70.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.0	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150			

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

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

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

**Batch BHD0153 - EPA 5030 Soil MS**

Matrix Spike Dup (BHD0153-MSD1)		Source: 2404060-01			Prepared: 04/04/24 Analyzed: 04/05/24					
Benzene	0.0854	0.0020	mg/kg	0.100	ND	85.4	70-130	2.71	30	
Toluene	0.0877	0.0050	"	0.100	ND	87.7	70-130	4.12	30	
Ethylbenzene	0.0952	0.0050	"	0.100	ND	95.2	70-130	3.76	30	
m,p-Xylene	0.188	0.010	"	0.200	ND	94.2	70-130	4.68	30	
o-Xylene	0.0917	0.0050	"	0.100	ND	91.7	70-130	1.82	30	
1,2,4-Trimethylbenzene	0.0911	0.0050	"	0.100	ND	91.1	70-130	3.18	30	
1,3,5-Trimethylbenzene	0.0929	0.0050	"	0.100	ND	92.9	70-130	3.12	30	
Naphthalene	0.0729	0.0038	"	0.100	ND	72.9	70-130	2.84	30	
Surrogate: 1,2-Dichloroethane-d4		0.0392	"	0.0400		98.1	50-150			
Surrogate: Toluene-d8		0.0419	"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene		0.0399	"	0.0400		99.8	50-150			

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BHD0156 - EPA 3550A**

**Blank (BHD0156-BLK1)**

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	16.2		"	12.5		130	30-150			

**LCS (BHD0156-BS1)**

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	411	50	mg/kg	500		82.3	70-130			
Surrogate: o-Terphenyl	10.4		"	12.5		82.9	30-150			

**Matrix Spike (BHD0156-MS1)**

Source: 2404060-01

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	395	50	mg/kg	500	12.8	76.4	70-130			
Surrogate: o-Terphenyl	6.97		"	12.5		55.8	30-150			

**Matrix Spike Dup (BHD0156-MSD1)**

Source: 2404060-01

Prepared: 04/04/24 Analyzed: 04/05/24

C10-C28 (DRO)	431	50	mg/kg	500	12.8	83.7	70-130	8.84	20	
Surrogate: o-Terphenyl	7.21		"	12.5		57.6	30-150			

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BHD0159 - EPA 5030 Soil MS

##### Blank (BHD0159-BLK1)

Prepared & Analyzed: 04/05/24

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	"							
Surrogate: 2-Methylnaphthalene-d10	0.0208		"	0.0333		62.5	40-150			
Surrogate: Fluoranthene-d10	0.0185		"	0.0333		55.4	40-150			

##### LCS (BHD0159-BS1)

Prepared & Analyzed: 04/05/24

Acenaphthene	0.0212	0.00500	mg/kg	0.0333		63.6	31-137			
Anthracene	0.0216	0.00500	"	0.0333		64.9	30-120			
Benzo (a) anthracene	0.0167	0.00500	"	0.0333		50.2	30-120			
Benzo (a) pyrene	0.0155	0.00500	"	0.0333		46.4	30-120			
Benzo (b) fluoranthene	0.0161	0.00500	"	0.0333		48.3	30-120			
Benzo (k) fluoranthene	0.0168	0.00500	"	0.0333		50.5	30-120			
Chrysene	0.0204	0.00500	"	0.0333		61.3	30-120			
Dibenz (a,h) anthracene	0.0140	0.00500	"	0.0333		42.1	30-120			
Fluoranthene	0.0177	0.00500	"	0.0333		53.2	30-120			
Fluorene	0.0165	0.00500	"	0.0333		49.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0176	0.00500	"	0.0333		52.9	30-120			
Pyrene	0.0256	0.00500	"	0.0333		76.9	35-142			
1-Methylnaphthalene	0.0239	0.00500	"	0.0333		71.8	35-142			
2-Methylnaphthalene	0.0218	0.00500	"	0.0333		65.4	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0228		"	0.0333		68.4	40-150			
Surrogate: Fluoranthene-d10	0.0188		"	0.0333		56.4	40-150			

Summit Scientific

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

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BHD0159 - EPA 5030 Soil MS

##### Matrix Spike (BHD0159-MS1)

Source: 2404060-01

Prepared & Analyzed: 04/05/24

Acenaphthene	0.0158	0.00500	mg/kg	0.0333	ND	47.3	31-137		
Anthracene	0.0157	0.00500	"	0.0333	ND	47.2	30-120		
Benzo (a) anthracene	0.0147	0.00500	"	0.0333	ND	44.1	30-120		
Benzo (a) pyrene	0.0136	0.00500	"	0.0333	ND	40.7	30-120		
Benzo (b) fluoranthene	0.0150	0.00500	"	0.0333	ND	45.0	30-120		
Benzo (k) fluoranthene	0.0139	0.00500	"	0.0333	ND	41.7	30-120		
Chrysene	0.0161	0.00500	"	0.0333	ND	48.3	30-120		
Dibenz (a,h) anthracene	0.0164	0.00500	"	0.0333	ND	49.2	30-120		
Fluoranthene	0.0165	0.00500	"	0.0333	ND	49.6	30-120		
Fluorene	0.0146	0.00500	"	0.0333	ND	43.8	30-120		
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.7	30-120		
Pyrene	0.0149	0.00500	"	0.0333	ND	44.7	35-142		
1-Methylnaphthalene	0.0155	0.00500	"	0.0333	ND	46.6	15-130		
2-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.8	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0151		"	0.0333		45.3	40-150		
Surrogate: Fluoranthene-d10	0.0163		"	0.0333		49.0	40-150		

##### Matrix Spike Dup (BHD0159-MSD1)

Source: 2404060-01

Prepared & Analyzed: 04/05/24

Acenaphthene	0.0149	0.00500	mg/kg	0.0333	ND	44.8	31-137	5.38	30
Anthracene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	4.43	30
Benzo (a) anthracene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	10.4	30
Benzo (a) pyrene	0.0157	0.00500	"	0.0333	ND	47.1	30-120	14.6	30
Benzo (b) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.4	30-120	7.36	30
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.7	30-120	4.81	30
Chrysene	0.0153	0.00500	"	0.0333	ND	45.8	30-120	5.26	30
Dibenz (a,h) anthracene	0.0164	0.00500	"	0.0333	ND	49.2	30-120	0.0488	30
Fluoranthene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	3.06	30
Fluorene	0.0142	0.00500	"	0.0333	ND	42.5	30-120	3.08	30
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.8	30-120	0.127	30
Pyrene	0.0155	0.00500	"	0.0333	ND	46.5	35-142	4.08	30
1-Methylnaphthalene	0.0164	0.00500	"	0.0333	ND	49.1	15-130	5.29	50
2-Methylnaphthalene	0.0153	0.00500	"	0.0333	ND	45.9	15-130	4.84	50
Surrogate: 2-Methylnaphthalene-d10	0.0140		"	0.0333		42.0	40-150		
Surrogate: Fluoranthene-d10	0.0137		"	0.0333		41.2	40-150		

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Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

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05/02/24 14:58

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

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

**Batch BHD0421 - General Preparation**

**Blank (BHD0421-BLK1)**

Prepared: 04/12/24 Analyzed: 05/01/24

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

**LCS (BHD0421-BS1)**

Prepared: 04/12/24 Analyzed: 05/01/24

Calcium	5.85	0.0500	mg/L wet	5.00	117	70-130
Magnesium	5.21	0.0500	"	5.00	104	70-130
Sodium	5.24	0.0500	"	5.00	105	70-130

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**Reported:**  
05/02/24 14:58

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

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

**Batch BHD0260 - General Preparation**

Duplicate (BHD0260-DUP1)		Source: 2404066-04			Prepared & Analyzed: 04/09/24					
% Solids	94.2		%		94.3		0.138		20	

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Broomfield CO, 80020

Project: Civitas - Mickey 5-F SEP

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
05/02/24 14:58

### Notes and Definitions

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