

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 22, 2024

Levi Kirk

Marcom LLC

1811 East Mulberry St.

Fort Collins, CO 80524

RE: Horsetail 07F

Work Order #2403326

Enclosed are the results of analyses for samples received by Summit Scientific on 03/21/24 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 "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-6@3'	2403326-01	Soil	03/21/24 09:10	03/21/24 16:30
Background-6@6'	2403326-02	Soil	03/21/24 09:15	03/21/24 16:30
Background-7@3'	2403326-03	Soil	03/21/24 09:20	03/21/24 16:30
Background-7@6'	2403326-04	Soil	03/21/24 09:25	03/21/24 16:30
Background-8@3'	2403326-05	Soil	03/21/24 09:30	03/21/24 16:30
Background-8@6'	2403326-06	Soil	03/21/24 09:35	03/21/24 16:30
Background-9@3'	2403326-07	Soil	03/21/24 09:40	03/21/24 16:30
Background-9@6'	2403326-08	Soil	03/21/24 09:45	03/21/24 16:30





# SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2403320	

Client: MarCom	Send Data To: Project Manager: Levi Kirk	Send Invoice To: Company: MarCom
Address:	E-Mail: LKirk@marcomllc.net	Project Name/Location: Horsetail OTF
City/State/Zip:		AFE#: send invoice to
Phone: 970-237-1415	Project Name: Horsetail OTF	PO/Billing Codes: < N+nattner@marcomllc.net
Sampler Name: ES 3 BR	Project Number:	Contact: Levi Kirk

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil			Tablet 915	Inorganics			
1	Background - 6 @ 3'	3/21/24	9:10	3			X			X			✓				
2	Background - 6 @ 6'		9:15				X			X			✓				
3	Background - 7 @ 3'		9:20				X			X			✓				
4	Background - 7 @ 6'		9:25				X			X			✓				
5	Background - 8 @ 3'		9:30				X			X			✓				
6	Background - 8 @ 6'		9:35				X			X			✓				
7	Background - 9 @ 3'		9:40				X			X			✓				
8	Background - 9 @ 6'		9:45				X			X			✓				
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: 	Date/Time: 3/21/24 15:00	Received by: 	Date/Time: 3/21/24 16:30	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: 5L	Date/Time: 3/21/24 16:30	Received by: 	Date/Time: 3/21/24 16:30	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by: 5L	Date/Time: 3/21/24 16:30	Received by: 	Date/Time: 3/21/24 16:30	3 Days	Field Temp.	
				Standard	<input checked="" type="checkbox"/> Field Turb.	
Temperature Upon Receipt: 8.6	Corrected Temperature: 8	IR gun #:			HNO3 lot #:	

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2403326

Client: Marcom Client Project ID: Horsetail 07F

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

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

Temp (°C) 8.6

Thermometer # 1

	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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	only 2 jars per sample
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

3/2/24  
Date/Time



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

**Background-6@3'**  
**2403326-01 (Soil)**

Summit Scientific

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

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.81	0.200		mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	183	0.400		"	"	"	"	"	"	
Cadmium	0.269	0.200		"	"	"	"	"	"	
Copper	4.77	0.400		"	"	"	"	"	"	
Lead	7.48	0.200		"	"	"	"	"	"	
Nickel	3.95	0.400		"	"	"	"	"	"	
Silver	0.0283	0.0200		"	"	"	"	"	"	
Zinc	16.8	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	123	0.0500		mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	7.59	0.0500		"	"	"	"	"	"	
Sodium	22.1	0.0500		"	"	"	"	"	"	

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.



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-6@3'**  
**2403326-01 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.523	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.363	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.72		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

**Background-6@6'**  
**2403326-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>2.54</b>	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	<b>184</b>	0.400	"	"	"	"	"	"	
Cadmium	<b>0.256</b>	0.200	"	"	"	"	"	"	
Copper	<b>4.75</b>	0.400	"	"	"	"	"	"	
Lead	<b>6.23</b>	0.200	"	"	"	"	"	"	
Nickel	<b>3.65</b>	0.400	"	"	"	"	"	"	
Silver	<b>0.0264</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>14.5</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>80.6</b>	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	<b>8.46</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>78.3</b>	0.0500	"	"	"	"	"	"	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-6@6'**  
**2403326-02 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.22	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.01	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.16		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-7@3'**  
**2403326-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.98	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	1810	0.400	"	"	"	"	"	"	
Cadmium	0.307	0.200	"	"	"	"	"	"	
Copper	5.57	0.400	"	"	"	"	"	"	
Lead	8.27	0.200	"	"	"	"	"	"	
Nickel	4.21	0.400	"	"	"	"	"	"	
Silver	0.0283	0.0200	"	"	"	"	"	"	
Zinc	19.1	0.400	"	"	"	"	"	"	
Selenium	0.451	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	1300	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	29.0	0.0500	"	"	"	"	"	"	
Sodium	30.4	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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-7@3'**  
**2403326-03 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.228</b>	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>81.9</b>		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.281</b>	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>9.08</b>		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

**Background-7@6'**  
**2403326-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.22	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	270	0.400	"	"	"	"	"	"	
Cadmium	0.303	0.200	"	"	"	"	"	"	
Copper	5.09	0.400	"	"	"	"	"	"	
Lead	7.64	0.200	"	"	"	"	"	"	
Nickel	4.21	0.400	"	"	"	"	"	"	
Silver	0.0295	0.0200	"	"	"	"	"	"	
Zinc	17.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	833	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	20.9	0.0500	"	"	"	"	"	"	
Sodium	23.3	0.0500	"	"	"	"	"	"	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-7@6'**  
**2403326-04 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.218</b>	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>82.7</b>		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.229</b>	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>9.16</b>		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-8@3'**  
**2403326-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.75	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	208	0.400	"	"	"	"	"	"	
Cadmium	0.270	0.200	"	"	"	"	"	"	
Copper	4.81	0.400	"	"	"	"	"	"	
Lead	6.75	0.200	"	"	"	"	"	"	
Nickel	3.62	0.400	"	"	"	"	"	"	
Silver	0.0303	0.0200	"	"	"	"	"	"	
Zinc	17.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	219	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	6.88	0.0500	"	"	"	"	"	"	
Sodium	5.72	0.0500	"	"	"	"	"	"	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-8@3'**  
**2403326-05 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.104</b>	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>83.1</b>		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.157</b>	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.93</b>		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

**Background-8@6'**  
**2403326-06 (Soil)**

Summit Scientific

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

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.13	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	223	0.400	"	"	"	"	"	"	
Cadmium	0.311	0.200	"	"	"	"	"	"	
Copper	4.94	0.400	"	"	"	"	"	"	
Lead	7.24	0.200	"	"	"	"	"	"	
Nickel	3.80	0.400	"	"	"	"	"	"	
Silver	0.0286	0.0200	"	"	"	"	"	"	
Zinc	17.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	247	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	7.30	0.0500	"	"	"	"	"	"	
Sodium	10.3	0.0500	"	"	"	"	"	"	

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.



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-8@6'**  
**2403326-06 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.176	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	82.6		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.226	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.68		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

**Background-9@3'**  
**2403326-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Arsenic</b>	<b>2.07</b>	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
<b>Barium</b>	<b>157</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>3.22</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>5.33</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>2.46</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
<b>Zinc</b>	<b>12.0</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>Calcium</b>	<b>1790</b>	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
<b>Magnesium</b>	<b>41.8</b>	0.0500	"	"	"	"	"	"	
<b>Sodium</b>	<b>47.2</b>	0.0500	"	"	"	"	"	"	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-9@3'**  
**2403326-07 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.301</b>	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>88.8</b>		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.296</b>	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.78</b>		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-9@6'**  
**2403326-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHC0868	03/22/24	05/13/24	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>2.38</b>	0.200	mg/kg dry	1	BHC0861	03/22/24	04/20/24	EPA 6020B	
Barium	<b>233</b>	0.400	"	"	"	"	"	"	
Cadmium	<b>0.235</b>	0.200	"	"	"	"	"	"	
Copper	<b>3.90</b>	0.400	"	"	"	"	"	"	
Lead	<b>6.09</b>	0.200	"	"	"	"	"	"	
Nickel	<b>3.07</b>	0.400	"	"	"	"	"	"	
Silver	<b>0.0207</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>14.2</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHC0854	03/22/24	03/29/24	EPA 7196A	

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

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>1370</b>	0.0500	mg/L dry	1	BHD0150	04/04/24	05/21/24	EPA 6020B	
Magnesium	<b>40.7</b>	0.0500	"	"	"	"	"	"	
Sodium	<b>52.5</b>	0.0500	"	"	"	"	"	"	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

**Background-9@6'**  
**2403326-08 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.381</b>	0.00100	units	1	BHE0676	05/22/24	05/22/24	Calculation	

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

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>88.9</b>		%	1	BHC0849	03/22/24	03/26/24	Calculation	

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

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.287</b>	0.0100	mmhos/cm	1	BHD0152	04/04/24	04/08/24	EPA 120.1	

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

Date Sampled: **03/21/24 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.81</b>		pH Units	1	BHD0151	04/04/24	04/08/24	EPA 9045D	

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

**Summit Scientific**

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

**Batch BHC0868 - EPA 3050B**

**Blank (BHC0868-BLK1)**

Prepared: 03/22/24 Analyzed: 05/13/24

Boron ND 2.00 mg/L

**LCS (BHC0868-BS1)**

Prepared: 03/22/24 Analyzed: 05/13/24

Boron 5.19 2.00 mg/L 5.00 104 80-120

**Duplicate (BHC0868-DUP1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 05/13/24

Boron 0.214 2.00 mg/L 0.294 31.9 20 QR-01

**Matrix Spike (BHC0868-MS1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 05/13/24

Boron 5.59 2.00 mg/L 5.00 0.294 106 75-125

**Matrix Spike Dup (BHC0868-MSD1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 05/13/24

Boron 5.80 2.00 mg/L 5.00 0.294 110 75-125 3.79 25

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

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

**Batch BHC0861 - EPA 3050B**

**Blank (BHC0861-BLK1)**

Prepared: 03/22/24 Analyzed: 04/20/24

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 (BHC0861-BS1)**

Prepared: 03/22/24 Analyzed: 04/20/24

Arsenic	43.0	0.200	mg/kg wet	40.0	108	80-120
Barium	39.2	0.400	"	40.0	97.9	80-120
Cadmium	1.88	0.200	"	2.00	94.0	80-120
Copper	42.4	0.400	"	40.0	106	80-120
Lead	19.3	0.200	"	20.0	96.3	80-120
Nickel	40.7	0.400	"	40.0	102	80-120
Silver	1.92	0.0200	"	2.00	95.9	80-120
Zinc	41.9	0.400	"	40.0	105	80-120
Selenium	4.33	0.260	"	4.00	108	80-120

**Duplicate (BHC0861-DUP1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 04/20/24

Arsenic	2.62	0.200	mg/kg dry	2.81	6.92	20	
Barium	135	0.400	"	183	30.4	20	QR-04
Cadmium	0.259	0.200	"	0.269	3.79	20	
Copper	4.28	0.400	"	4.77	10.7	20	
Lead	7.27	0.200	"	7.48	2.92	20	
Nickel	3.69	0.400	"	3.95	6.79	20	
Silver	0.0264	0.0200	"	0.0283	6.67	20	
Zinc	15.9	0.400	"	16.8	5.54	20	
Selenium	ND	0.260	"	ND		20	

Summit Scientific

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



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

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

**Batch BHC0861 - EPA 3050B**

**Matrix Spike (BHC0861-MS1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 04/20/24

Arsenic	50.3	0.200	mg/kg dry	45.6	2.81	104	75-125			
Barium	198	0.400	"	45.6	183	32.6	75-125			QM-07
Cadmium	2.30	0.200	"	2.28	0.269	89.3	75-125			
Copper	35.8	0.400	"	45.6	4.77	68.2	75-125			QM-05
Lead	26.9	0.200	"	22.8	7.48	85.2	75-125			
Nickel	33.9	0.400	"	45.6	3.95	65.8	75-125			QM-05
Silver	2.10	0.0200	"	2.28	0.0283	90.7	75-125			
Zinc	45.8	0.400	"	45.6	16.8	63.6	75-125			QM-05
Selenium	4.16	0.260	"	4.56	ND	91.4	75-125			

**Matrix Spike Dup (BHC0861-MSD1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 04/20/24

Arsenic	50.1	0.200	mg/kg dry	45.6	2.81	104	75-125	0.374	25	
Barium	199	0.400	"	45.6	183	35.9	75-125	0.746	25	QM-07
Cadmium	2.34	0.200	"	2.28	0.269	90.9	75-125	1.63	25	
Copper	35.3	0.400	"	45.6	4.77	66.9	75-125	1.61	25	QM-05
Lead	27.0	0.200	"	22.8	7.48	85.7	75-125	0.438	25	
Nickel	33.5	0.400	"	45.6	3.95	64.8	75-125	1.27	25	QM-05
Silver	2.11	0.0200	"	2.28	0.0283	91.4	75-125	0.758	25	
Zinc	44.8	0.400	"	45.6	16.8	61.4	75-125	2.19	25	QM-05
Selenium	4.24	0.260	"	4.56	ND	93.0	75-125	1.78	25	

**Post Spike (BHC0861-PS1)**

Source: 2403326-01

Prepared: 03/22/24 Analyzed: 04/20/24

Arsenic	111		ug/l	100	6.16	105	75-125			
Barium	497		"	100	402	95.9	75-125			
Cadmium	4.98		"	5.00	0.591	87.7	75-125			
Copper	69.8		"	100	10.5	59.3	75-125			QM-01
Lead	59.1		"	50.0	16.4	85.4	75-125			
Nickel	65.7		"	100	8.67	57.0	75-125			QM-01
Silver	4.43		"	5.00	0.0620	87.4	75-125			
Zinc	94.9		"	100	36.9	58.0	75-125			QM-01
Selenium	9.60		"	10.0	0.323	92.8	75-125			

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.



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

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

**Batch BHC0854 - 3060A Mod**

**Blank (BHC0854-BLK1)**

Prepared: 03/22/24 Analyzed: 03/29/24

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BHC0854-BS1)**

Prepared: 03/22/24 Analyzed: 03/29/24

Chromium, Hexavalent 24.6 0.30 mg/kg wet 25.0 98.2 80-120

**Duplicate (BHC0854-DUP1)**

**Source: 2403326-01**

Prepared: 03/22/24 Analyzed: 03/29/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BHC0854-MS1)**

**Source: 2403326-01**

Prepared: 03/22/24 Analyzed: 03/29/24

Chromium, Hexavalent 28.8 0.30 mg/kg dry 28.5 ND 101 75-125

**Matrix Spike Dup (BHC0854-MSD1)**

**Source: 2403326-01**

Prepared: 03/22/24 Analyzed: 03/29/24

Chromium, Hexavalent 28.8 0.30 mg/kg dry 28.5 ND 101 75-125 0.00 20

Summit Scientific

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



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

**Summit Scientific**

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

**Batch BHD0150 - General Preparation**

**Blank (BHD0150-BLK1)**

Prepared: 04/04/24 Analyzed: 05/21/24

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

**LCS (BHD0150-BS1)**

Prepared: 04/04/24 Analyzed: 05/21/24

Calcium	5.67	0.0500	mg/L wet	5.00		113	70-130			
Magnesium	4.91	0.0500	"	5.00		98.3	70-130			
Sodium	4.82	0.0500	"	5.00		96.4	70-130			

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.*



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

**Summit Scientific**

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

**Batch BHC0849 - General Preparation**

<b>Duplicate (BHC0849-DUP1)</b>		<b>Source: 2403322-01</b>		Prepared: 03/22/24 Analyzed: 03/26/24	
% Solids	89.6	%		83.4	7.12 20

Summit Scientific

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



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

**Summit Scientific**

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

**Batch BHD0152 - General Preparation**

**Blank (BHD0152-BLK1)**

Prepared: 04/04/24 Analyzed: 04/08/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHD0152-BS1)**

Prepared: 04/04/24 Analyzed: 04/08/24

Specific Conductance (EC) 0.151 0.0100 mmhos/cm 0.150 101 95-105

**Duplicate (BHD0152-DUP1)**

**Source: 2403326-01**

Prepared: 04/04/24 Analyzed: 04/08/24

Specific Conductance (EC) 0.353 0.0100 mmhos/cm 0.363 2.91 20

Summit Scientific

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



Marcom LLC  
 1811 East Mulberry St.  
 Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 05/22/24 10:04

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

**Summit Scientific**

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

**Batch BHD0151 - General Preparation**

**LCS (BHD0151-BS1)**

Prepared: 04/04/24 Analyzed: 04/08/24

pH	9.08	pH Units	9.18	98.9	95-105
----	------	----------	------	------	--------

**Duplicate (BHD0151-DUP1)**

Source: 2403326-01

Prepared: 04/04/24 Analyzed: 04/08/24

pH	8.50	pH Units	8.72	2.56	20
----	------	----------	------	------	----

Summit Scientific

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



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: Horsetail 07F

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
05/22/24 10:04

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- 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-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- 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