

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 20, 2024

Sam Vogt

Tasman Geosciences

6855 W. 119th Ave.

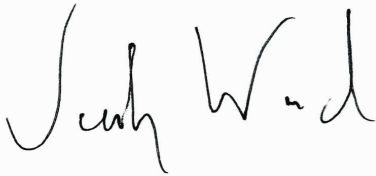
Broomfield, CO 80020

RE: Civitas - Aristocrat Angus 41-10C

Work Order #2311627

Enclosed are the results of analyses for samples received by Summit Scientific on 11/30/23 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL-B02@4'	2311627-01	Soil	11/30/23 09:51	11/30/23 17:55
FL-B03@4'	2311627-02	Soil	11/30/23 09:55	11/30/23 17:55
FL-B04@4'	2311627-03	Soil	11/30/23 09:57	11/30/23 17:55
FL-B05@4'	2311627-04	Soil	11/30/23 09:59	11/30/23 17:55
SP-CS02	2311627-05	Soil	11/30/23 10:13	11/30/23 17:55
SP-CS03	2311627-06	Soil	11/30/23 10:42	11/30/23 17:55
FL-B14@3'	2311627-07	Soil	11/30/23 12:04	11/30/23 17:55
FL-B15@3'	2311627-08	Soil	11/30/23 12:05	11/30/23 17:55
FL-B16@3'	2311627-09	Soil	11/30/23 12:09	11/30/23 17:55
SP-CS04	2311627-10	Soil	11/30/23 12:11	11/30/23 17:55
FL-B17@3'	2311627-11	Soil	11/30/23 13:08	11/30/23 17:55
FL-B18@3'	2311627-12	Soil	11/30/23 13:12	11/30/23 17:55
FL-B19@3'	2311627-13	Soil	11/30/23 13:14	11/30/23 17:55
FL-B20@3'	2311627-14	Soil	11/30/23 13:17	11/30/23 17:55
FL-B21@3'	2311627-15	Soil	11/30/23 13:21	11/30/23 17:55
SP-CS05	2311627-16	Soil	11/30/23 13:28	11/30/23 17:55
FL-GW01	2311627-17	Water	11/30/23 11:24	11/30/23 17:55
FL-GW02	2311627-18	Water	11/30/23 11:35	11/30/23 17:55
FL-GW03	2311627-19	Water	11/30/23 11:50	11/30/23 17:55
FL-GW04	2311627-20	Water	11/30/23 12:17	11/30/23 17:55
FL-GW05	2311627-21	Water	11/30/23 12:34	11/30/23 17:55
FL-GW06	2311627-22	Water	11/30/23 12:54	11/30/23 17:55
FL-GW07	2311627-23	Water	11/30/23 13:03	11/30/23 17:55

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

## Case Narrative

Tracey Smith requested Metals be added to all soil samples on 2/5/2024.  
This report includes those results.

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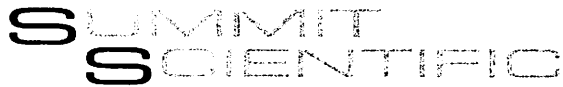
Summit Scientific

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<b>Send Data To:</b>		<b>Send Invoice To:</b>
Client: Civitas / Tasman	Project Manager: Sam Vogt / Jacob Evans	Company: Civitas
Address: 6855 W. 119th Ave.	E-Mail: Svogt@tasman-geo.com	Project Name/Location:
City/State/Zip: Broomfield, CO 80020	Jevans@civitasresources.com	AFE#:
Phone: PM Phone # - (610)-405-9078	Project Name: <u>Anistocad Angus 91-10C</u>	PO/Billing Codes:
Sampler Name: <u>Daniel Hense</u>	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested							Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN	1,2,4 + 1,3,5 TMB's	TPH(GRO,DRO,ORO)	PAH	pH,EC,SAR		Boron
1	FL-B0204	11/30/23	9:51	2			X			X			X	X	X	X	X	X	metals on hold
2	FL-B0304		9:55																
3	FL-B0404		9:57																
4	FL-B0504		9:59																
5	SP-C502		10:13																
6	SP-C503		10:42																
7	FL-B1403		12:04																
8	FL-B1503		12:05																
9	FL-B1603		12:09																
10	SP-C504		12:11																
11	FL-B1703		13:08																
12	FL-B1603		13:12																
13	FL-B1903		13:14																
14	FL-B2003		13:17																
15	<del>FL-B2103</del> FL-B2103		13:21																

Relinquished by: <u>CH</u>	Date/Time: <u>11/30/23 16:30</u>	Received by: <u>CH</u>	Date/Time: <u>11/30/23 16:30</u>	TAT Business Days	Field DO	Notes: <u>metals on hold</u>
Relinquished by: <u>Tasman/CH</u>	Date/Time: <u>11/30/23 17:55</u>	Received by: <u>[Signature]</u>	Date/Time: <u>11/30/23 17:55</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <u>11.7</u>	Corrected Temperature: <u>11.7</u>	IR gun #:	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	



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 Golden, CO 80403  
 303-277-9310

Lab ID	Page <u>2</u> of <u>2</u>
2311627.2	

<b>Send Data To:</b>		<b>Send Invoice To:</b>
Client: Civitas / Tasman	Project Manager: Sam Vogt / Jacob Evans	Company: Civitas
Address: 6855 W. 119th Ave.	E-Mail: Svogt@tasman-geo.com	Project Name/Location:
City/State/Zip: Broomfield, CO 80020	Jevans@civitasresources.com	AFE#:
Phone: PM Phone # - (610)-405-9078	Project Name: <u>Aristocrat Angus 41-10C</u>	PO/Billing Codes:
Sampler Name: <u>Daniel Hensel</u>	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN	1,2,4 + 1,3,5 TMB's	TPH(GRO,DRO,ORO)	PAH	pH,EC,SAR		Boron	Metals	
1	<u>SP-GW05</u>	<u>11/30/23</u>	<u>13:26</u>	<u>2</u>			<u>X</u>							<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>metals on Hold</u>	
2	<u>FL-GW01</u>		<u>11:24</u>	<u>3</u>	<u>X</u>				<u>X</u>					<u>X</u>	<u>X</u>						
3	<u>FL-GW02</u>		<u>11:35</u>																		
4	<u>FL-GW03</u>		<u>11:30</u>																		
5	<u>FL-GW04</u>		<u>12:17</u>																		
6	<u>FL-GW05</u>		<u>12:39</u>																		
7	<u>FL-GW06</u>		<u>12:54</u>																		
8	<u>FL-GW07</u>		<u>13:03</u>																		
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <u>PH</u>	Date/Time: <u>11/30/23 16:30</u>	Received by: <u>PH</u>	Date/Time: <u>16:30</u>	TAT Business Days	Field DO	Notes: <u>metals on Hold</u>
Relinquished by: <u>Tasman</u>	Date/Time: <u>11/30/23 17:55</u>	Received by: <u>PH</u>	Date/Time: <u>11/30/23 17:55</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <u>11.7</u>	Corrected Temperature: <u>8</u>	IR gun #:		Standard	<u>X</u> Field Turb.	
				HNO3 lot #:		

S<sub>2</sub>

2/2

Sample Receipt Checklist

S2 Work Order# 2311627

Client: Caritas Tushman

Client Project ID: Ariscourt Angus 41-10C

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

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

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

Temp (°C) 11.7

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"/>	on ICE
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	no time stamps on soils
For volatiles in water - is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
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

11/30/23  
Date/Time

4



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B02@4'**  
**2311627-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0427	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0427	107 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	101 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.5	99.9 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B02@4'**  
**2311627-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0183	55.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0161	48.2 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 09:51**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B02@4'**  
**2311627-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.17	0.200	mg/kg dry	1	BHB0464	02/14/24	02/15/24	EPA 6020B	
Barium	39.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.32	0.400	"	"	"	"	"	"	
Lead	5.33	0.200	"	"	"	"	"	"	
Nickel	2.34	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.60	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	78.7	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	20.1	0.0500	"	"	"	"	"	"	
Sodium	1.05	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0273	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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6855 W. 119th Ave.  
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Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B02@4'**  
**2311627-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.6			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0344	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.09			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B03@4'**  
**2311627-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0427	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0422	106 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0396	99.0 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.14	57.2 %		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 - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B03@4'**  
**2311627-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	<b>0.0161</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.0119</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	<b>0.0118</b>	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.0139</b>	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Fluoranthene</b>	<b>0.0222</b>	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.0239</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0296	88.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0248	74.3 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 09:55**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B03@4'**  
**2311627-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.34	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	52.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.29	0.400	"	"	"	"	"	"	
Lead	4.49	0.200	"	"	"	"	"	"	
Nickel	2.25	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.85	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 09:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 09:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	73.0	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	15.0	0.0500	"	"	"	"	"	"	
Sodium	0.480	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 09:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0134	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B03@4'**  
**2311627-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:55**

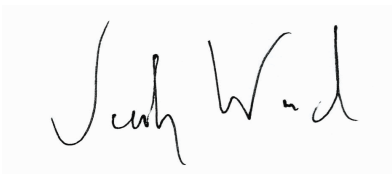
Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.5			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0655	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

Summit Scientific



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
 Project Manager: Sam Vogt

**Reported:**  
 03/20/24 14:41

**FL-B03@4'**  
**2311627-02 (Soil)**


**Summit Scientific**

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

Date Sampled: **11/30/23 09:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.36</b>		pH Units	1	BHB0056	12/18/23	02/02/24	EPA 9045D	I-04

Summit Scientific



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B04@4'**  
**2311627-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0337	84.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0422	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0387	96.7 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.69	69.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B04@4'**  
**2311627-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0267	80.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0215	64.4 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 09:57**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B04@4'**  
**2311627-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.09	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	37.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.49	0.400	"	"	"	"	"	"	
Lead	5.17	0.200	"	"	"	"	"	"	
Nickel	2.24	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.65	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 09:57

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 09:57

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	33.8	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	10.4	0.0500	"	"	"	"	"	"	
Sodium	0.732	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 09:57

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0282	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B04@4'**  
**2311627-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.0			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0391	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 09:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.60			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B05@4'**  
**2311627-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0418	105 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.66	77.3 %		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 - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B05@4'**  
**2311627-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
<b>Anthracene</b>	<b>0.0174</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	<b>0.0703</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.0634</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	<b>0.0545</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	<b>0.0183</b>	0.00500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.0658</b>	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Fluoranthene</b>	<b>0.0900</b>	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	<b>0.0282</b>	0.00500	"	"	"	"	"	"	
<b>Pyrene</b>	<b>0.0979</b>	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0255	76.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0240	72.0 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 09:59**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B05@4'**  
**2311627-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.21	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	41.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.41	0.400	"	"	"	"	"	"	
Lead	3.91	0.200	"	"	"	"	"	"	
Nickel	2.38	0.400	"	"	"	"	"	"	
Silver	0.0224	0.0200	"	"	"	"	"	"	
Zinc	9.50	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 09:59

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 09:59

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.8	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	9.68	0.0500	"	"	"	"	"	"	
Sodium	2.35	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 09:59

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0883	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B05@4'**  
**2311627-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	96.3			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0623	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 09:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	6.93			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS02**  
**2311627-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0413	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0426	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.06	64.5 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS02**  
**2311627-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0354	106 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0275	82.5 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 10:13**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS02**  
**2311627-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.14	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	37.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.77	0.400	"	"	"	"	"	"	
Lead	14.9	0.200	"	"	"	"	"	"	
Nickel	2.26	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	22.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	33.6	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	9.11	0.0500	"	"	"	"	"	"	
Sodium	0.697	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0275	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS02**  
**2311627-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.5		%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0358	0.0100	mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 10:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.86		pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS03**  
**2311627-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0414	104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.5 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 10:42**

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

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS03**  
**2311627-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	<b>0.00505</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	<b>0.00611</b>	0.00500	"	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	<b>0.00608</b>	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: **11/30/23 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0334	100 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0304	91.2 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 10:42**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS03**  
**2311627-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.16	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	30.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.11	0.400	"	"	"	"	"	"	
Lead	3.46	0.200	"	"	"	"	"	"	
Nickel	2.07	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.54	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 10:42

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 10:42

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	19.5	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	5.49	0.0500	"	"	"	"	"	"	
Sodium	0.552	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 10:42

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0284	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS03**  
**2311627-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.8			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0414	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.09			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B14@3'**  
**2311627-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
<b>Toluene</b>	<b>0.0078</b>	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.050</b>	0.010		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.0057</b>	0.0050		"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.0071</b>	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0400	100 %		50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0419	105 %		50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0403	101 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: o-Terphenyl</i>	7.49	59.9 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B14@3'**  
**2311627-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0243	72.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0212	63.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>1.17</b>	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
<b>Barium</b>	<b>21.6</b>	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
<b>Copper</b>	<b>2.37</b>	0.400	"	"	"	"	"	"	
<b>Lead</b>	<b>4.55</b>	0.200	"	"	"	"	"	"	
<b>Nickel</b>	<b>1.83</b>	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B14@3'**  
**2311627-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Zinc	8.86	0.400	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Selenium	ND	0.260	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 12:04

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 12:04

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	41.9	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	18.5	0.0500	"	"	"	"	"	"	
Sodium	353	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 12:04

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.4	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

Date Sampled: 11/30/23 12:04

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.8		%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
 Project Manager: Sam Vogt

**Reported:**  
 03/20/24 14:41

**FL-B14@3'**  
**2311627-07 (Soil)**

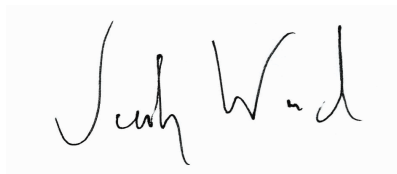
**Summit Scientific**

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

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>9.02</b>		pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B14@3'**  
**2311627-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:04**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Boron</b>	<b>2.87</b>	2.00		mg/L	1	BHB0059	02/02/24	02/07/24	EPA 6020B	

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

Date Sampled: **11/30/23 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Specific Conductance (EC)</b>	<b>2.52</b>	0.0100		mmhos/cm	1	BHB0594	02/19/24	02/19/24	EPA 120.1	I-04

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B15@3'**  
**2311627-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.73	0.20	mg/kg	100	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	3.1	0.50	"	"	"	"	"	"	
Ethylbenzene	0.40	0.0050	"	1	"	"	12/06/23	"	
Xylenes (total)	3.4	1.0	"	100	"	"	12/06/23	"	
1,2,4-Trimethylbenzene	74	0.50	"	"	"	"	"	"	E
1,3,5-Trimethylbenzene	0.63	0.0050	"	1	"	"	12/06/23	"	
Naphthalene	0.027	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	100	0.50	"	"	"	"	12/06/23	"	E

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0377	94.2 %	50-150		"	"	12/06/23	"	
Surrogate: Toluene-d8	0.0423	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0774	194 %	50-150		"	"	"	"	E

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	5.95	47.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B15@3'**  
**2311627-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0151	45.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0153	46.0 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 12:05**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B15@3'**  
**2311627-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.519	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	15.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.24	0.400	"	"	"	"	"	"	
Lead	4.99	0.200	"	"	"	"	"	"	
Nickel	1.47	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.08	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	50.3	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	11.8	0.0500	"	"	"	"	"	"	
Sodium	250	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 12:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.24	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B15@3'**  
**2311627-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:05**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	<b>80.0</b>			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.44</b>			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B15@3'**  
**2311627-08 (Soil)**


**Summit Scientific**

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

Date Sampled: **11/30/23 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	2.22	0.0100	mmhos/cm	1	BHB0594	02/19/24	02/19/24	EPA 120.1	I-04

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B16@3'**  
**2311627-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.14</b>	0.0020	mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
<b>Toluene</b>	<b>0.25</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.27</b>	0.010	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.021</b>	0.0050	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.016</b>	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>2.0</b>	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0400	100 %	50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0415	104 %	50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0405	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>	7.06	56.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B16@3'**  
**2311627-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0166	49.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0161	48.2 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 12:09**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B16@3'**  
**2311627-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.04	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	20.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.10	0.400	"	"	"	"	"	"	
Lead	4.25	0.200	"	"	"	"	"	"	
Nickel	1.71	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.08	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 12:09

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 12:09

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	96.5	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	27.2	0.0500	"	"	"	"	"	"	
Sodium	288	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 12:09

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.67	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B16@3'**  
**2311627-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:09**


Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	<b>80.4</b>			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	<b>8.32</b>			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

Summit Scientific



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B16@3'**  
**2311627-09 (Soil)**


**Summit Scientific**

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

Date Sampled: **11/30/23 12:09**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	1.66	0.0100	mmhos/cm	1	BHB0594	02/19/24	02/19/24	EPA 120.1	I-04

Summit Scientific



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS04**  
**2311627-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0446	111 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0432	108 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0332	83.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.59	68.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS04**  
**2311627-10 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0163	48.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0152	45.7 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 12:11**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS04**  
**2311627-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.940	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	29.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.42	0.400	"	"	"	"	"	"	
Lead	3.66	0.200	"	"	"	"	"	"	
Nickel	2.22	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.44	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 12:11

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 12:11

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	69.7	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	18.8	0.0500	"	"	"	"	"	"	
Sodium	299	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 12:11

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.20	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS04**  
**2311627-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:11**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.5		%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.00		pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
 Project Manager: Sam Vogt

**Reported:**  
 03/20/24 14:41

**SP-CS04**  
**2311627-10 (Soil)**


**Summit Scientific**

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

Date Sampled: **11/30/23 12:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	2.69	0.0100	mmhos/cm	1	BHB0594	02/19/24	02/19/24	EPA 120.1	I-04

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B17@3'**  
**2311627-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0414	103 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0421	105 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.3 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:08**

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

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B17@3'**  
**2311627-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0188	56.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0193	57.8 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 13:08**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B17@3'**  
**2311627-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.00	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	23.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.09	0.400	"	"	"	"	"	"	
Lead	3.55	0.200	"	"	"	"	"	"	
Nickel	1.66	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.56	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 13:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 13:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	51.0	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	15.4	0.0500	"	"	"	"	"	"	
Sodium	125	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 13:08

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.94	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B17@3'**  
**2311627-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	76.8			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.873	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 13:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.19			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B18@3'**  
**2311627-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0278	69.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0336	84.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.82	62.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B18@3'**  
**2311627-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0229	68.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.5 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 13:12**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B18@3'**  
**2311627-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.06	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	24.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.06	0.400	"	"	"	"	"	"	
Lead	4.04	0.200	"	"	"	"	"	"	
Nickel	1.73	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.65	0.400	"	"	"	"	"	"	
Selenium	0.400	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 13:12

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 13:12

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	48.2	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	11.1	0.0500	"	"	"	"	"	"	
Sodium	61.8	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 13:12

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.09	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B18@3'**  
**2311627-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.2			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.505	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.01			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B19@3'**  
**2311627-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0458	114 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0433	108 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.95	55.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B19@3'**  
**2311627-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0177	53.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0165	49.4 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 13:14**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B19@3'**  
**2311627-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.707	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	18.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.04	0.400	"	"	"	"	"	"	
Lead	3.60	0.200	"	"	"	"	"	"	
Nickel	1.50	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.69	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 13:14

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 13:14

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	114	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	24.3	0.0500	"	"	"	"	"	"	
Sodium	173	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 13:14

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.84	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B19@3'**  
**2311627-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	81.8			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.11	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 13:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.53			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B20@3'**  
**2311627-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0400	99.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0414	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0380	95.0 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.46	51.7 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B20@3'**  
**2311627-14 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0161	48.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0158	47.5 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 13:17**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B20@3'**  
**2311627-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.18	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	22.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.20	0.400	"	"	"	"	"	"	
Lead	4.10	0.200	"	"	"	"	"	"	
Nickel	1.65	0.400	"	"	"	"	"	"	
Silver	0.0309	0.0200	"	"	"	"	"	"	
Zinc	8.31	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 13:17

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 13:17

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	38.8	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	10.0	0.0500	"	"	"	"	"	"	
Sodium	102	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 13:17

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.78	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B20@3'**  
**2311627-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	77.7			%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.628	0.0100		mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 13:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.72			pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B21@3'**  
**2311627-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.035</b>	0.0050		"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.033</b>	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>1.9</b>	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0397	99.2 %		50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0418	104 %		50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0403	101 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: o-Terphenyl</i>	10.5	83.8 %		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 - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B21@3'**  
**2311627-15 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0103</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0162	48.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.8 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 13:21**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B21@3'**  
**2311627-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.17	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	31.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.81	0.400	"	"	"	"	"	"	
Lead	3.63	0.200	"	"	"	"	"	"	
Nickel	2.48	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	11.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 13:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 13:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	74.4	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	21.9	0.0500	"	"	"	"	"	"	
Sodium	1.23	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 13:21

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0322	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-B21@3'**  
**2311627-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.6		%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0174	0.0100	mmhos/cm	1	BGL0634	12/18/23	12/19/23	EPA 120.1	

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

Date Sampled: **11/30/23 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.18		pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS05**  
**2311627-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGL0152	12/05/23	12/06/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0425	106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	101 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGL0158	12/05/23	12/08/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.71	61.7 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS05**  
**2311627-16 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGL0252	12/07/23	12/08/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0164	49.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0141	42.4 %	40-150		"	"	"	"	

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

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGL0350	12/10/23	12/15/23	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **11/30/23 13:28**

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS05**  
**2311627-16 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.904	0.200	mg/kg dry	1	BHB0464	02/14/24	02/16/24	EPA 6020B	
Barium	19.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.14	0.400	"	"	"	"	"	"	
Lead	4.15	0.200	"	"	"	"	"	"	
Nickel	1.61	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.44	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 11/30/23 13:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHB0166	02/06/24	02/06/24	EPA 7196A	I-04

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

Date Sampled: 11/30/23 13:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	78.0	0.0500	mg/L dry	1	BGL0547	12/14/23	12/21/23	EPA 6020B	
Magnesium	22.1	0.0500	"	"	"	"	"	"	
Sodium	177	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 11/30/23 13:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.56	0.00100	units	1	BGL0831	12/21/23	12/21/23	Calculation	

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

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**SP-CS05**  
**2311627-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:28**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.3		%	1	BGL0405	12/12/23	12/12/23	Calculation	

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

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.25		pH Units	1	BGL0633	12/18/23	12/19/23	EPA 9045D	

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 Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
 Project Manager: Sam Vogt

**Reported:**  
 03/20/24 14:41

**SP-CS05**  
**2311627-16 (Soil)**


**Summit Scientific**

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

Date Sampled: **11/30/23 13:28**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	1.67	0.0100	mmhos/cm	1	BHB0594	02/19/24	02/19/24	EPA 120.1	I-04

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW01**  
**2311627-17 (Water)**

**Summit Scientific**

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

Date Sampled: **11/30/23 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>260</b>	1.0		ug/l	1	BGL0129	12/04/23	12/05/23	EPA 8260B	E
<b>Toluene</b>	<b>1100</b>	100		"	100	"	"	12/04/23	"	
<b>Ethylbenzene</b>	<b>67</b>	1.0		"	1	"	"	12/05/23	"	
<b>Xylenes (total)</b>	<b>1500</b>	200		"	100	"	"	12/04/23	"	
<b>Naphthalene</b>	<b>44</b>	1.0		"	1	"	"	12/05/23	"	
<b>1,2,4-Trimethylbenzene</b>	<b>430</b>	100		"	100	"	"	12/04/23	"	
<b>1,3,5-Trimethylbenzene</b>	<b>320</b>	100		"	"	"	"	"	"	

Date Sampled: **11/30/23 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.5	101 %		23-173		"	"	12/05/23	"	
<i>Surrogate: Toluene-d8</i>	13.3	99.8 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	15.8	118 %		21-167		"	"	"	"	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW02**  
**2311627-18 (Water)**

**Summit Scientific**

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

Date Sampled: **11/30/23 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>2400</b>	100		ug/l	100	BGL0129	12/04/23	12/04/23	EPA 8260B	
<b>Toluene</b>	<b>6700</b>	100		"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>160</b>	1.0		"	1	"	"	12/05/23	"	
<b>Xylenes (total)</b>	<b>3500</b>	200		"	100	"	"	12/04/23	"	
<b>Naphthalene</b>	<b>18</b>	1.0		"	1	"	"	12/05/23	"	
<b>1,2,4-Trimethylbenzene</b>	<b>150</b>	1.0		"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>100</b>	1.0		"	"	"	"	"	"	

Date Sampled: **11/30/23 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	14.8	111 %		23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	15.1	113 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	13.8	103 %		21-167		"	"	"	"	

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW03**  
**2311627-19 (Water)**

**Summit Scientific**

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


Date Sampled: **11/30/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>100</b>	1.0		ug/l	1	BGL0129	12/04/23	12/04/23	EPA 8260B	
<b>Toluene</b>	<b>140</b>	1.0		"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>6.9</b>	1.0		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>100</b>	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>8.3</b>	1.0		"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>5.8</b>	1.0		"	"	"	"	"	"	

Date Sampled: **11/30/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	14.2	106 %		23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	12.6	94.1 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	13.2	99.0 %		21-167		"	"	"	"	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW04**  
**2311627-20 (Water)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>660</b>	10		ug/l	10	BGL0129	12/04/23	12/05/23	EPA 8260B	
<b>Toluene</b>	<b>640</b>	10		"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>25</b>	1.0		"	1	"	"	12/04/23	"	
<b>Xylenes (total)</b>	<b>390</b>	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>16</b>	1.0		"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>11</b>	1.0		"	"	"	"	"	"	

Date Sampled: **11/30/23 12:17**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.6	102 %		23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	13.4	100 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	13.5	101 %		21-167		"	"	"	"	

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW05**  
**2311627-21 (Water)**

**Summit Scientific**

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


Date Sampled: **11/30/23 12:34**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>4.7</b>	1.0		ug/l	1	BGL0129	12/04/23	12/04/23	EPA 8260B	
<b>Toluene</b>	<b>19</b>	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>12</b>	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **11/30/23 12:34**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	15.1	114 %		23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	15.7	118 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	13.3	99.5 %		21-167		"	"	"	"	

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW06**  
**2311627-22 (Water)**

**Summit Scientific**

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

Date Sampled: **11/30/23 12:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>110</b>	1.0		ug/l	1	BGL0129	12/04/23	12/05/23	EPA 8260B	
<b>Toluene</b>	<b>220</b>	1.0		"	"	"	"	"	"	E
<b>Ethylbenzene</b>	<b>12</b>	1.0		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>190</b>	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>16</b>	1.0		"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>11</b>	1.0		"	"	"	"	"	"	

Date Sampled: **11/30/23 12:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.8	103 %		23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	13.1	98.0 %		20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	13.4	100 %		21-167		"	"	"	"	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**FL-GW07**  
**2311627-23 (Water)**

**Summit Scientific**

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

Date Sampled: **11/30/23 13:03**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGL0129	12/04/23	12/05/23	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **11/30/23 13:03**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	13.8	103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	99.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.5	101 %		21-167		"	"	"	"	

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

#### Summit Scientific

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

#### Batch BGL0129 - EPA 5030 Water MS

##### Blank (BGL0129-BLK1)

Prepared & Analyzed: 12/04/23

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	2.0	"								
Naphthalene	ND	1.0	"								
1,2,4-Trimethylbenzene	ND	1.0	"								
1,3,5-Trimethylbenzene	ND	1.0	"								
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.0	23-173				
Surrogate: Toluene-d8	13.2		"	13.3		99.2	20-170				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.2	21-167				

##### LCS (BGL0129-BS1)

Prepared & Analyzed: 12/04/23

Benzene	32.5	1.0	ug/l	33.3		97.4	51-132				
Toluene	32.9	1.0	"	33.3		98.8	51-138				
Ethylbenzene	33.4	1.0	"	33.3		100	58-146				
m,p-Xylene	66.5	2.0	"	66.7		99.7	57-144				
o-Xylene	33.0	1.0	"	33.3		98.9	53-146				
Naphthalene	23.5	1.0	"	33.3		70.5	70-130				
1,2,4-Trimethylbenzene	33.4	1.0	"	33.3		100	70-130				
1,3,5-Trimethylbenzene	33.4	1.0	"	33.3		100	70-130				
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		103	23-173				
Surrogate: Toluene-d8	13.2		"	13.3		98.8	20-170				
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		99.8	21-167				

##### Matrix Spike (BGL0129-MS1)

Source: 2311628-21

Prepared & Analyzed: 12/04/23

Benzene	29.4	1.0	ug/l	33.3	ND	88.1	34-141				
Toluene	30.9	1.0	"	33.3	ND	92.8	27-151				
Ethylbenzene	31.3	1.0	"	33.3	ND	94.0	29-160				
m,p-Xylene	58.6	2.0	"	66.7	ND	88.0	20-166				
o-Xylene	30.4	1.0	"	33.3	ND	91.3	33-159				
Naphthalene	32.1	1.0	"	33.3	ND	96.4	70-130				
1,2,4-Trimethylbenzene	21.7	1.0	"	33.3	ND	65.1	70-130				QM-07
1,3,5-Trimethylbenzene	26.2	1.0	"	33.3	ND	78.6	70-130				
Surrogate: 1,2-Dichloroethane-d4	12.2		"	13.3		91.9	23-173				
Surrogate: Toluene-d8	13.3		"	13.3		99.9	20-170				
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167				

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

**Summit Scientific**

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

**Batch BGL0129 - EPA 5030 Water MS**

Matrix Spike Dup (BGL0129-MSD1)	Source: 2311628-21			Prepared & Analyzed: 12/04/23						
Benzene	31.4	1.0	ug/l	33.3	ND	94.4	34-141	6.81	30	
Toluene	31.2	1.0	"	33.3	ND	93.7	27-151	0.965	30	
Ethylbenzene	31.4	1.0	"	33.3	ND	94.2	29-160	0.287	30	
m,p-Xylene	59.1	2.0	"	66.7	ND	88.6	20-166	0.764	30	
o-Xylene	31.0	1.0	"	33.3	ND	93.0	33-159	1.82	30	
Naphthalene	33.7	1.0	"	33.3	ND	101	70-130	4.77	30	
1,2,4-Trimethylbenzene	22.1	1.0	"	33.3	ND	66.3	70-130	1.74	30	QM-07
1,3,5-Trimethylbenzene	26.2	1.0	"	33.3	ND	78.5	70-130	0.115	30	
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.3		104	23-173			
Surrogate: Toluene-d8	13.3		"	13.3		99.6	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.2	21-167			

**Batch BGL0152 - EPA 5030 Soil MS**

Blank (BGL0152-BLK1)	Prepared: 12/05/23 Analyzed: 12/06/23									
Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	50-150			
Surrogate: Toluene-d8	0.0449		"	0.0400		112	50-150			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100	50-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

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

**Batch BGL0152 - EPA 5030 Soil MS**

**LCS (BGL0152-BS1)**

Prepared: 12/05/23 Analyzed: 12/06/23

Benzene	0.112	0.0020	mg/kg	0.100		112	70-130			
Toluene	0.101	0.0050	"	0.100		101	70-130			
Ethylbenzene	0.0941	0.0050	"	0.100		94.1	70-130			
m,p-Xylene	0.179	0.010	"	0.200		89.4	70-130			
o-Xylene	0.0837	0.0050	"	0.100		83.7	70-130			
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.0989	0.0050	"	0.100		98.9	70-130			
Naphthalene	0.125	0.0038	"	0.100		125	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0411</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0427</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0390</i>		<i>"</i>	<i>0.0400</i>		<i>97.5</i>	<i>50-150</i>			

**Matrix Spike (BGL0152-MS1)**

Source: 2311627-01

Prepared: 12/05/23 Analyzed: 12/06/23

Benzene	0.0926	0.0020	mg/kg	0.100	ND	92.6	70-130			
Toluene	0.0836	0.0050	"	0.100	ND	83.6	70-130			
Ethylbenzene	0.0824	0.0050	"	0.100	ND	82.4	70-130			
m,p-Xylene	0.153	0.010	"	0.200	ND	76.3	70-130			
o-Xylene	0.0712	0.0050	"	0.100	ND	71.2	70-130			
1,2,4-Trimethylbenzene	0.0766	0.0050	"	0.100	ND	76.6	70-130			
1,3,5-Trimethylbenzene	0.0822	0.0050	"	0.100	ND	82.2	70-130			
Naphthalene	0.0937	0.0038	"	0.100	ND	93.7	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0419</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0384</i>		<i>"</i>	<i>0.0400</i>		<i>96.0</i>	<i>50-150</i>			

**Matrix Spike Dup (BGL0152-MSD1)**

Source: 2311627-01

Prepared: 12/05/23 Analyzed: 12/06/23

Benzene	0.0869	0.0020	mg/kg	0.100	ND	86.9	70-130	6.32	30	
Toluene	0.0782	0.0050	"	0.100	ND	78.2	70-130	6.60	30	
Ethylbenzene	0.0733	0.0050	"	0.100	ND	73.3	70-130	11.7	30	
m,p-Xylene	0.167	0.010	"	0.200	ND	83.5	70-130	8.94	30	
o-Xylene	0.0939	0.0050	"	0.100	ND	93.9	70-130	27.4	30	
1,2,4-Trimethylbenzene	0.0936	0.0050	"	0.100	ND	93.6	70-130	20.1	30	
1,3,5-Trimethylbenzene	0.0712	0.0050	"	0.100	ND	71.2	70-130	14.4	30	
Naphthalene	0.0757	0.0038	"	0.100	ND	75.7	70-130	21.3	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0433</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0417</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0385</i>		<i>"</i>	<i>0.0400</i>		<i>96.2</i>	<i>50-150</i>			

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

**Summit Scientific**

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

**Batch BGL0158 - EPA 3550A**

**Blank (BGL0158-BLK1)**

Prepared: 12/05/23 Analyzed: 12/07/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		92.7	30-150			

**LCS (BGL0158-BS1)**

Prepared: 12/05/23 Analyzed: 12/07/23

C10-C28 (DRO)	525	50	mg/kg	500	13.8	81.7	70-130			
Surrogate: <i>o</i> -Terphenyl	7.65		"	12.5		61.2	30-150			

**Matrix Spike (BGL0158-MS1)**

Source: 2311627-01

Prepared: 12/05/23 Analyzed: 12/07/23

C10-C28 (DRO)	422	50	mg/kg	500	13.8	81.7	70-130			
Surrogate: <i>o</i> -Terphenyl	5.88		"	12.5		47.0	30-150			

**Matrix Spike Dup (BGL0158-MSD1)**

Source: 2311627-01

Prepared: 12/05/23 Analyzed: 12/08/23

C10-C28 (DRO)	470	50	mg/kg	500	13.8	91.2	70-130	10.7	20	
Surrogate: <i>o</i> -Terphenyl	6.33		"	12.5		50.6	30-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

**Summit Scientific**

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

**Batch BGL0252 - EPA 5030 Soil MS**

**Blank (BGL0252-BLK1)**

Prepared: 12/07/23 Analyzed: 12/08/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0395</i>		"	<i>0.0333</i>		<i>118</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0383</i>		"	<i>0.0333</i>		<i>115</i>	<i>40-150</i>			

**LCS (BGL0252-BS1)**

Prepared: 12/07/23 Analyzed: 12/08/23

Acenaphthene	0.0329	0.00500	mg/kg	0.0333	98.6	31-137
Anthracene	0.0259	0.00500	"	0.0333	77.6	30-120
Benzo (a) anthracene	0.0267	0.00500	"	0.0333	80.1	30-120
Benzo (a) pyrene	0.0225	0.00500	"	0.0333	67.4	30-120
Benzo (b) fluoranthene	0.0202	0.00500	"	0.0333	60.7	30-120
Benzo (k) fluoranthene	0.0245	0.00500	"	0.0333	73.4	30-120
Chrysene	0.0275	0.00500	"	0.0333	82.6	30-120
Dibenz (a,h) anthracene	0.0261	0.00500	"	0.0333	78.3	30-120
Fluoranthene	0.0248	0.00500	"	0.0333	74.4	30-120
Fluorene	0.0241	0.00500	"	0.0333	72.2	30-120
Indeno (1,2,3-cd) pyrene	0.0273	0.00500	"	0.0333	82.0	30-120
Pyrene	0.0304	0.00500	"	0.0333	91.2	35-142
1-Methylnaphthalene	0.0257	0.00500	"	0.0333	77.0	35-142
2-Methylnaphthalene	0.0299	0.00500	"	0.0333	89.8	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0335</i>		"	<i>0.0333</i>	<i>101</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0364</i>		"	<i>0.0333</i>	<i>109</i>	<i>40-150</i>

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**PAH by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch BGL0252 - EPA 5030 Soil MS**

<b>Matrix Spike (BGL0252-MS1)</b>	<b>Source: 2311627-01</b>			Prepared: 12/07/23 Analyzed: 12/08/23					
Acenaphthene	0.0160	0.00500	mg/kg	0.0333	ND	47.9	31-137		
Anthracene	0.0140	0.00500	"	0.0333	ND	42.1	30-120		
Benzo (a) anthracene	0.0153	0.00500	"	0.0333	ND	45.9	30-120		
Benzo (a) pyrene	0.0175	0.00500	"	0.0333	ND	52.5	30-120		
Benzo (b) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.6	30-120		
Benzo (k) fluoranthene	0.0163	0.00500	"	0.0333	ND	48.8	30-120		
Chrysene	0.0141	0.00500	"	0.0333	ND	42.4	30-120		
Dibenz (a,h) anthracene	0.0235	0.00500	"	0.0333	ND	70.6	30-120		
Fluoranthene	0.0154	0.00500	"	0.0333	ND	46.1	30-120		
Fluorene	0.0155	0.00500	"	0.0333	ND	46.6	30-120		
Indeno (1,2,3-cd) pyrene	0.0186	0.00500	"	0.0333	ND	55.6	30-120		
Pyrene	0.0145	0.00500	"	0.0333	ND	43.4	35-142		
1-Methylnaphthalene	0.0156	0.00500	"	0.0333	ND	46.9	15-130		
2-Methylnaphthalene	0.0170	0.00500	"	0.0333	ND	51.1	15-130		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0206</i>		"	<i>0.0333</i>		<i>61.8</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0202</i>		"	<i>0.0333</i>		<i>60.5</i>	<i>40-150</i>		

<b>Matrix Spike Dup (BGL0252-MSD1)</b>	<b>Source: 2311627-01</b>			Prepared: 12/07/23 Analyzed: 12/08/23					
Acenaphthene	0.0178	0.00500	mg/kg	0.0333	ND	53.3	31-137	10.8	30
Anthracene	0.0156	0.00500	"	0.0333	ND	46.7	30-120	10.3	30
Benzo (a) anthracene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	14.3	30
Benzo (a) pyrene	0.0183	0.00500	"	0.0333	ND	54.8	30-120	4.30	30
Benzo (b) fluoranthene	0.0140	0.00500	"	0.0333	ND	42.0	30-120	22.4	30
Benzo (k) fluoranthene	0.0141	0.00500	"	0.0333	ND	42.4	30-120	14.1	30
Chrysene	0.0149	0.00500	"	0.0333	ND	44.6	30-120	4.90	30
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	60.0	30-120	16.3	30
Fluoranthene	0.0154	0.00500	"	0.0333	ND	46.3	30-120	0.489	30
Fluorene	0.0144	0.00500	"	0.0333	ND	43.1	30-120	7.92	30
Indeno (1,2,3-cd) pyrene	0.0190	0.00500	"	0.0333	ND	57.1	30-120	2.66	30
Pyrene	0.0180	0.00500	"	0.0333	ND	54.1	35-142	22.1	30
1-Methylnaphthalene	0.0182	0.00500	"	0.0333	ND	54.7	15-130	15.4	50
2-Methylnaphthalene	0.0191	0.00500	"	0.0333	ND	57.3	15-130	11.4	50
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0217</i>		"	<i>0.0333</i>		<i>65.0</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0231</i>		"	<i>0.0333</i>		<i>69.3</i>	<i>40-150</i>		

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

**Summit Scientific**

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

**Batch BGL0350 - EPA 3050B**

<b>Blank (BGL0350-BLK1)</b>				Prepared: 12/10/23 Analyzed: 12/15/23							
Boron	ND	2.00	mg/L								
<b>LCS (BGL0350-BS1)</b>				Prepared: 12/10/23 Analyzed: 12/15/23							
Boron	5.10	2.00	mg/L	5.00	102	80-120					
<b>Duplicate (BGL0350-DUP1)</b>				Source: 2311626-01 Prepared: 12/10/23 Analyzed: 12/15/23							
Boron	0.284	2.00	mg/L		0.300			5.52	20		
<b>Matrix Spike (BGL0350-MS1)</b>				Source: 2311626-01 Prepared: 12/10/23 Analyzed: 12/15/23							
Boron	5.33	2.00	mg/L	5.00	0.300	101	75-125				
<b>Matrix Spike Dup (BGL0350-MSD1)</b>				Source: 2311626-01 Prepared: 12/10/23 Analyzed: 12/15/23							
Boron	5.37	2.00	mg/L	5.00	0.300	101	75-125	0.768	25		

**Batch BHB0059 - EPA 3050B**

<b>Blank (BHB0059-BLK1)</b>				Prepared: 02/02/24 Analyzed: 02/07/24							
Boron	ND	2.00	mg/L								
<b>LCS (BHB0059-BS1)</b>				Prepared: 02/02/24 Analyzed: 02/07/24							
Boron	5.55	2.00	mg/L	5.00	111	80-120					
<b>Duplicate (BHB0059-DUP1)</b>				Source: 2311627-07RE1 Prepared: 02/02/24 Analyzed: 02/07/24							
Boron	2.82	2.00	mg/L		2.87			1.87	20		
<b>Matrix Spike (BHB0059-MS1)</b>				Source: 2311627-07RE1 Prepared: 02/02/24 Analyzed: 02/07/24							
Boron	8.18	2.00	mg/L	5.00	2.87	106	75-125				

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

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

**Batch BHB0059 - EPA 3050B**


**Matrix Spike Dup (BHB0059-MSD1)**

**Source: 2311627-07RE1**

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

Boron	8.18	2.00	mg/L	5.00	2.87	106	75-125	0.0348	25	
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**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 BHB0464 - EPA 3050B**

**Blank (BHB0464-BLK1)**

Prepared: 02/14/24 Analyzed: 02/15/24

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 (BHB0464-BS1)**

Prepared: 02/14/24 Analyzed: 02/15/24

Arsenic	32.9	0.200	mg/kg wet	40.0	82.3	80-120
Barium	33.6	0.400	"	40.0	83.9	80-120
Cadmium	1.72	0.200	"	2.00	86.2	80-120
Copper	37.2	0.400	"	40.0	92.9	80-120
Lead	17.1	0.200	"	20.0	85.5	80-120
Nickel	36.3	0.400	"	40.0	90.7	80-120
Silver	1.76	0.0200	"	2.00	87.9	80-120
Zinc	36.4	0.400	"	40.0	90.9	80-120
Selenium	3.93	0.260	"	4.00	98.2	80-120

**Duplicate (BHB0464-DUP1)**

Source: 2311627-01

Prepared: 02/14/24 Analyzed: 02/15/24

Arsenic	1.12	0.200	mg/kg dry	1.17	4.53	20
Barium	40.2	0.400	"	39.5	1.76	20
Cadmium	0.0894	0.200	"	0.102	12.7	20
Copper	2.35	0.400	"	2.32	1.37	20
Lead	6.07	0.200	"	5.33	13.0	20
Nickel	2.38	0.400	"	2.34	2.01	20
Silver	0.0186	0.0200	"	0.0151	20.5	20
Zinc	10.5	0.400	"	9.60	8.59	20
Selenium	ND	0.260	"	ND		20

QR-01

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**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 BHB0464 - EPA 3050B**

**Matrix Spike (BHB0464-MS1)**

Source: 2311627-01

Prepared: 02/14/24 Analyzed: 02/15/24

Arsenic	35.5	0.200	mg/kg dry	43.2	1.17	79.3	75-125				
Barium	73.0	0.400	"	43.2	39.5	77.6	75-125				
Cadmium	1.91	0.200	"	2.16	0.102	83.7	75-125				
Copper	31.2	0.400	"	43.2	2.32	66.8	75-125				QM-07
Lead	23.3	0.200	"	21.6	5.33	83.4	75-125				
Nickel	30.9	0.400	"	43.2	2.34	66.0	75-125				QM-07
Silver	1.87	0.0200	"	2.16	0.0151	85.6	75-125				
Zinc	40.7	0.400	"	43.2	9.60	71.9	75-125				QM-07
Selenium	3.86	0.260	"	4.32	ND	89.4	75-125				

**Matrix Spike Dup (BHB0464-MSD1)**

Source: 2311627-01

Prepared: 02/14/24 Analyzed: 02/15/24

Arsenic	37.6	0.200	mg/kg dry	43.2	1.17	84.3	75-125	5.90	25		
Barium	77.0	0.400	"	43.2	39.5	86.9	75-125	5.34	25		
Cadmium	2.02	0.200	"	2.16	0.102	88.8	75-125	5.65	25		
Copper	33.1	0.400	"	43.2	2.32	71.3	75-125	6.03	25		QM-07
Lead	24.6	0.200	"	21.6	5.33	89.4	75-125	5.40	25		
Nickel	32.7	0.400	"	43.2	2.34	70.3	75-125	5.75	25		QM-07
Silver	1.99	0.0200	"	2.16	0.0151	91.2	75-125	6.31	25		
Zinc	43.3	0.400	"	43.2	9.60	78.0	75-125	6.27	25		
Selenium	4.16	0.260	"	4.32	ND	96.4	75-125	7.45	25		

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

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

**Batch BHB0166 - 3060A Mod**

**Blank (BHB0166-BLK1)**

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent      ND      0.30 mg/kg wet

**LCS (BHB0166-BS1)**

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent      23.0      0.30 mg/kg wet      25.0      92.0      80-120

**Duplicate (BHB0166-DUP1)**

**Source: 2311627-01**

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent      ND      0.30 mg/kg dry      ND      20

**Matrix Spike (BHB0166-MS1)**

**Source: 2311627-01**

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent      24.8      0.30 mg/kg dry      27.0      ND      91.8      75-125

**Matrix Spike Dup (BHB0166-MSD1)**

**Source: 2311627-01**

Prepared & Analyzed: 02/06/24

Chromium, Hexavalent      24.6      0.30 mg/kg dry      27.0      ND      91.2      75-125      0.656      20

Summit Scientific

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**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 BGL0547 - General Preparation**

**Blank (BGL0547-BLK1)**

Prepared: 12/14/23 Analyzed: 12/21/23

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

**LCS (BGL0547-BS1)**

Prepared: 12/14/23 Analyzed: 12/21/23

Calcium	5.91	0.0500	mg/L wet	5.00		118	70-130			
Magnesium	5.19	0.0500	"	5.00		104	70-130			
Sodium	5.04	0.0500	"	5.00		101	70-130			

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
 Project Manager: Sam Vogt

**Reported:**  
 03/20/24 14:41

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

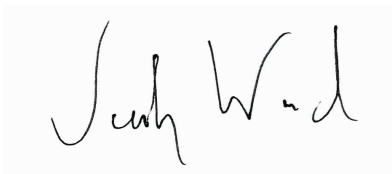
**Summit Scientific**

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

**Batch BGL0405 - General Preparation**

Duplicate (BGL0405-DUP1)	Source: 2311627-01		Prepared & Analyzed: 12/12/23								
% Solids	92.4	%			92.6				0.167	20	

Summit Scientific



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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

**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 BGL0634 - General Preparation**

**Blank (BGL0634-BLK1)**

Prepared: 12/18/23 Analyzed: 12/19/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGL0634-BS1)**

Prepared: 12/18/23 Analyzed: 12/19/23

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 95-105

**Duplicate (BGL0634-DUP1)**

**Source: 2311626-01**

Prepared: 12/18/23 Analyzed: 12/19/23

Specific Conductance (EC) 0.287 0.0100 mmhos/cm 0.285 0.629 20

**Batch BHB0594 - General Preparation**

**Blank (BHB0594-BLK1)**

Prepared & Analyzed: 02/19/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHB0594-BS1)**

Prepared & Analyzed: 02/19/24

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 105 95-105

**Duplicate (BHB0594-DUP1)**

**Source: 2311627-07RE1**

Prepared & Analyzed: 02/19/24

Specific Conductance (EC) 2.57 0.0100 mmhos/cm 2.52 1.77 20

Summit Scientific

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

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

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

**Summit Scientific**

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

**Batch BGL0633 - General Preparation**

**LCS (BGL0633-BS1)**

Prepared: 12/18/23 Analyzed: 12/19/23

pH	9.12		pH Units	9.18		99.3	95-105		
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**Duplicate (BGL0633-DUP1)**

Source: 2311626-01

Prepared: 12/18/23 Analyzed: 12/19/23

pH	6.32		pH Units		6.39			1.10	20
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**Batch BHB0056 - General Preparation**

**LCS (BHB0056-BS1)**

Prepared & Analyzed: 02/02/24

pH	9.12		pH Units	9.18		99.3	95-105		
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**Duplicate (BHB0056-DUP1)**

Source: 2311564-01RE1

Prepared & Analyzed: 02/02/24

pH	8.18		pH Units		8.90			8.43	20
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Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield CO, 80020

Project: Civitas - Aristocrat Angus 41-10C

Project Number: [none]  
Project Manager: Sam Vogt

**Reported:**  
03/20/24 14:41

### 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-07      The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- I-04        Sample was analyzed out of recommended holding time per clients request.
- E            The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET        Analyte DETECTED
- ND        Analyte NOT DETECTED at or above the reporting limit
- NR        Not Reported
- dry        Sample results reported on a dry weight basis
- RPD        Relative Percent Difference