

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 18, 2024

Mike Medina

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Wolfe USX CC07-13, 16 Tank Battery

Work Order #2411228

Enclosed are the results of analyses for samples received by Summit Scientific on 11/13/24 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@2'	2411228-01	Soil	11/13/24 14:22	11/13/24 17:55
SS02@1'	2411228-02	Soil	11/13/24 14:24	11/13/24 17:55
SS03@1'	2411228-03	Soil	11/13/24 14:26	11/13/24 17:55
SS04@1'	2411228-04	Soil	11/13/24 14:28	11/13/24 17:55
SS05@1'	2411228-05	Soil	11/13/24 14:30	11/13/24 17:55



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

Lab ID	Page (of)
2411228	

		Send Data To:		Send Invoice To:	
Client:	Noble / Tasman	Project Manager:	Mike Medina	Company:	Noble Energy
Address:	6855 W 119th Ave	E-Mail:	tas-chevron-2@tasman-geo.com	Project Name/Location: Wolfe USX CC07-13,16 Tank Battery	
City/State/Zip:	Broomfield / CO / 80020			AFE#:	
Phone:	303-487-1228	Project Name:	Wolfe USX CC07-13,16 Tank Battery	PO/Billing Codes:	
Sampler Name:	Jon Meier	Project Number:		Contact: Dan Peterson	

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 - 8260B	1,2,4 & 1,3,5-TMB	TDS, Cl, SO4	TPH (C6-C36)	PAH - 915	Metals - 915		Full-915 Suite*
1	SS01@2'	11/13/24	1422	2			X			X										* PAH, Inorganics, and Metals are on 48hour Turnaround.
2	SS02@1'		1424																	
3	SS03@1'		1426																	
4	SS04@1'		1428																	
5	SS05@1'		1430																	
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days	Field DO	Notes:
<i>[Signature]</i>	11/13/24 1619	Tasman Drop Box	11/13/24 1619	Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Tasman Drop Box	11/13/24 1755	<i>[Signature]</i>	11/13/24 1755	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 8.5	Corrected Temperature: 9	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2411228

Client: Nodel Casman Client Project ID: Wolfe USX C07-13, 16 Tank Battery

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

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

Temp (°C) 8.5

Thermometer # 1

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

Additional Comments (if any):

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

AS
Custodian Printed Name

11/13/24
Date/Time

3000-01



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS01@2'
2411228-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK0700	11/13/24	11/14/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0373	93.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0382	95.5 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK0704	11/13/24	11/14/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.2	105 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS01@2'
2411228-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHK0713	11/14/24	11/15/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0176	52.9 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHK0733	11/14/24	11/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/13/24 14:22**

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS01@2'
2411228-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.65	0.200	mg/kg dry	1	BHK0737	11/14/24	11/15/24	EPA 6020B	
Barium	52.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.45	0.400	"	"	"	"	"	"	
Lead	5.18	0.200	"	"	"	"	"	"	
Nickel	3.66	0.400	"	"	"	"	"	"	
Silver	0.0248	0.0200	"	"	"	"	"	"	
Zinc	22.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/13/24 14:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0739	11/14/24	11/14/24	EPA 7196A	

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

Date Sampled: 11/13/24 14:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.8	0.0500	mg/L dry	1	BHK0698	11/13/24	11/14/24	EPA 6020B	
Magnesium	6.84	0.0500	"	"	"	"	"	"	
Sodium	0.308	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/13/24 14:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0137	0.00100	units	1	BHK0817	11/15/24	11/15/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS01@2'
2411228-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.6			%	1	BHK0714	11/14/24	11/14/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.106	0.0100		mmhos/cm	1	BHK0701	11/13/24	11/15/24	EPA 120.1	

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

Date Sampled: **11/13/24 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.99			pH Units	1	BHK0705	11/13/24	11/15/24	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS02@1'
2411228-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK0700	11/13/24	11/14/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0371	92.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0369	92.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK0704	11/13/24	11/13/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.72	77.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS02@1'
2411228-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHK0713	11/14/24	11/15/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0149	44.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0154	46.2 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHK0733	11/14/24	11/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/13/24 14:24**

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS02@1'
2411228-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.59	0.200	mg/kg dry	1	BHK0737	11/14/24	11/15/24	EPA 6020B	
Barium	52.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.33	0.400	"	"	"	"	"	"	
Lead	5.15	0.200	"	"	"	"	"	"	
Nickel	3.52	0.400	"	"	"	"	"	"	
Silver	0.0238	0.0200	"	"	"	"	"	"	
Zinc	21.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/13/24 14:24

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0739	11/14/24	11/14/24	EPA 7196A	

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

Date Sampled: 11/13/24 14:24

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	23.8	0.0500	mg/L dry	1	BHK0698	11/13/24	11/14/24	EPA 6020B	
Magnesium	6.08	0.0500	"	"	"	"	"	"	
Sodium	1.06	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/13/24 14:24

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0502	0.00100	units	1	BHK0817	11/15/24	11/15/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS02@1'
2411228-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.5			%	1	BHK0714	11/14/24	11/14/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.129	0.0100		mmhos/cm	1	BHK0701	11/13/24	11/15/24	EPA 120.1	

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

Date Sampled: **11/13/24 14:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.16			pH Units	1	BHK0705	11/13/24	11/15/24	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS03@1'
2411228-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK0700	11/13/24	11/14/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0356	89.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0377	94.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK0704	11/13/24	11/13/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.68	69.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS03@1'
2411228-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHK0713	11/14/24	11/15/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0182	54.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0183	55.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHK0733	11/14/24	11/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/13/24 14:26**

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS03@1'
2411228-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.04	0.200	mg/kg dry	1	BHK0737	11/14/24	11/15/24	EPA 6020B	
Barium	74.0	0.400	"	"	"	"	"	"	
Cadmium	0.209	0.200	"	"	"	"	"	"	
Copper	7.69	0.400	"	"	"	"	"	"	
Lead	6.80	0.200	"	"	"	"	"	"	
Nickel	4.19	0.400	"	"	"	"	"	"	
Silver	0.0302	0.0200	"	"	"	"	"	"	
Zinc	30.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/13/24 14:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0739	11/14/24	11/14/24	EPA 7196A	

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

Date Sampled: 11/13/24 14:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.3	0.0500	mg/L dry	1	BHK0698	11/13/24	11/14/24	EPA 6020B	
Magnesium	8.32	0.0500	"	"	"	"	"	"	
Sodium	1.90	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/13/24 14:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0780	0.00100	units	1	BHK0817	11/15/24	11/15/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/13/24 14:26

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS03@1'
2411228-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.6	%	1	BHK0714	11/14/24	11/14/24	Calculation
-----------------	-------------	---	---	---------	----------	----------	-------------

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0864	0.0100	mmhos/cm	1	BHK0701	11/13/24	11/15/24	EPA 120.1	

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

Date Sampled: **11/13/24 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.08		pH Units	1	BHK0705	11/13/24	11/15/24	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS04@1'
2411228-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK0700	11/13/24	11/14/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0356	89.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0396	99.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK0704	11/13/24	11/13/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.1	89.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS04@1'
2411228-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHK0713	11/14/24	11/15/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0162	48.7 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHK0733	11/14/24	11/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/13/24 14:28**

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS04@1'
2411228-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.61	0.200	mg/kg dry	1	BHK0737	11/14/24	11/15/24	EPA 6020B	
Barium	47.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.05	0.400	"	"	"	"	"	"	
Lead	4.78	0.200	"	"	"	"	"	"	
Nickel	3.36	0.400	"	"	"	"	"	"	
Silver	0.0212	0.0200	"	"	"	"	"	"	
Zinc	18.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/13/24 14:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0739	11/14/24	11/14/24	EPA 7196A	

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

Date Sampled: 11/13/24 14:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.2	0.0500	mg/L dry	1	BHK0698	11/13/24	11/14/24	EPA 6020B	
Magnesium	2.98	0.0500	"	"	"	"	"	"	
Sodium	2.04	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/13/24 14:28

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.128	0.00100	units	1	BHK0817	11/15/24	11/15/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS04@1'
2411228-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.4			%	1	BHK0714	11/14/24	11/14/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.141	0.0100		mmhos/cm	1	BHK0701	11/13/24	11/15/24	EPA 120.1	

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

Date Sampled: **11/13/24 14:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.27			pH Units	1	BHK0705	11/13/24	11/15/24	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS05@1'
2411228-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK0700	11/13/24	11/14/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0370	92.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0376	93.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK0704	11/13/24	11/13/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.37	74.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS05@1'
2411228-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHK0713	11/14/24	11/15/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0158	47.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	49.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHK0733	11/14/24	11/14/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/13/24 14:30**

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS05@1'
2411228-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.98	0.200	mg/kg dry	1	BHK0737	11/14/24	11/15/24	EPA 6020B	
Barium	63.0	0.400	"	"	"	"	"	"	
Cadmium	0.220	0.200	"	"	"	"	"	"	
Copper	7.55	0.400	"	"	"	"	"	"	
Lead	7.22	0.200	"	"	"	"	"	"	
Nickel	3.98	0.400	"	"	"	"	"	"	
Silver	0.0295	0.0200	"	"	"	"	"	"	
Zinc	27.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/13/24 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHK0739	11/14/24	11/14/24	EPA 7196A	

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

Date Sampled: 11/13/24 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.7	0.0500	mg/L dry	1	BHK0698	11/13/24	11/14/24	EPA 6020B	
Magnesium	7.76	0.0500	"	"	"	"	"	"	
Sodium	0.806	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/13/24 14:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0340	0.00100	units	1	BHK0817	11/15/24	11/15/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/13/24 14:30

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

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

SS05@1'
2411228-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.3	%	1	BHK0714	11/14/24	11/14/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0644	0.0100	mmhos/cm	1	BHK0701	11/13/24	11/15/24	EPA 120.1	

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

Date Sampled: **11/13/24 14:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.08		pH Units	1	BHK0705	11/13/24	11/15/24	EPA 9045D	

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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 BHK0700 - EPA 5030 Soil MS

Blank (BHK0700-BLK1)

Prepared: 11/13/24 Analyzed: 11/14/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0369		"	0.0400		92.2	50-150			
Surrogate: Toluene-d8	0.0410		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0375		"	0.0400		93.8	50-150			

LCS (BHK0700-BS1)

Prepared: 11/13/24 Analyzed: 11/14/24

Benzene	0.0958	0.0020	mg/kg	0.100		95.8	70-130			
Toluene	0.0963	0.0050	"	0.100		96.3	70-130			
Ethylbenzene	0.100	0.0050	"	0.100		100	70-130			
m,p-Xylene	0.201	0.010	"	0.200		101	70-130			
o-Xylene	0.101	0.0050	"	0.100		101	70-130			
1,2,4-Trimethylbenzene	0.0985	0.0050	"	0.100		98.5	70-130			
1,3,5-Trimethylbenzene	0.0987	0.0050	"	0.100		98.7	70-130			
Naphthalene	0.0767	0.0038	"	0.100		76.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0400		90.1	50-150			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.5	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	50-150			

Matrix Spike (BHK0700-MS1)

Source: 2411226-01

Prepared: 11/13/24 Analyzed: 11/14/24

Benzene	0.0883	0.0020	mg/kg	0.100	ND	88.3	70-130			
Toluene	0.0901	0.0050	"	0.100	ND	90.1	70-130			
Ethylbenzene	0.0927	0.0050	"	0.100	ND	92.7	70-130			
m,p-Xylene	0.187	0.010	"	0.200	ND	93.5	70-130			
o-Xylene	0.0922	0.0050	"	0.100	ND	92.2	70-130			
1,2,4-Trimethylbenzene	0.0887	0.0050	"	0.100	ND	88.7	70-130			
1,3,5-Trimethylbenzene	0.0901	0.0050	"	0.100	ND	90.1	70-130			
Naphthalene	0.0734	0.0038	"	0.100	ND	73.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0373		"	0.0400		93.2	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.4	50-150			

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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 BHK0700 - EPA 5030 Soil MS

Matrix Spike Dup (BHK0700-MSD1)	Source: 2411226-01			Prepared: 11/13/24 Analyzed: 11/14/24						
Benzene	0.0864	0.0020	mg/kg	0.100	ND	86.4	70-130	2.10	30	
Toluene	0.0874	0.0050	"	0.100	ND	87.4	70-130	3.04	30	
Ethylbenzene	0.0922	0.0050	"	0.100	ND	92.2	70-130	0.552	30	
m,p-Xylene	0.184	0.010	"	0.200	ND	91.9	70-130	1.80	30	
o-Xylene	0.0922	0.0050	"	0.100	ND	92.2	70-130	0.00	30	
1,2,4-Trimethylbenzene	0.0912	0.0050	"	0.100	ND	91.2	70-130	2.77	30	
1,3,5-Trimethylbenzene	0.0916	0.0050	"	0.100	ND	91.6	70-130	1.65	30	
Naphthalene	0.0765	0.0038	"	0.100	ND	76.5	70-130	4.20	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0361</i>		<i>"</i>	<i>0.0400</i>		<i>90.2</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0399</i>		<i>"</i>	<i>0.0400</i>		<i>99.8</i>	<i>50-150</i>			

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHK0704 - EPA 3550A

Blank (BHK0704-BLK1)

Prepared: 11/13/24 Analyzed: 11/14/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.9		"	12.5		111		30-150			

LCS (BHK0704-BS1)

Prepared: 11/13/24 Analyzed: 11/14/24

C10-C28 (DRO)	415	50	mg/kg	500		83.1		70-130			
Surrogate: <i>o</i> -Terphenyl	12.2		"	12.5		97.7		30-150			

Matrix Spike (BHK0704-MS1)

Source: 2411226-01

Prepared: 11/13/24 Analyzed: 11/14/24

C10-C28 (DRO)	390	50	mg/kg	500	ND	78.0		70-130			
Surrogate: <i>o</i> -Terphenyl	11.1		"	12.5		88.8		30-150			

Matrix Spike Dup (BHK0704-MSD1)

Source: 2411226-01

Prepared: 11/13/24 Analyzed: 11/14/24

C10-C28 (DRO)	422	50	mg/kg	500	ND	84.3		70-130	7.87	20	
Surrogate: <i>o</i> -Terphenyl	11.7		"	12.5		93.7		30-150			

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHK0713 - EPA 5030 Soil MS

Blank (BHK0713-BLK1)

Prepared & Analyzed: 11/14/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0172</i>		"	<i>0.0333</i>		<i>51.5</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0194</i>		"	<i>0.0333</i>		<i>58.2</i>	<i>40-140</i>			

LCS (BHK0713-BS1)

Prepared & Analyzed: 11/14/24

Acenaphthene	0.0203	0.00500	mg/kg	0.0333	60.8	40-140
Anthracene	0.0165	0.00500	"	0.0333	49.4	40-140
Benzo (a) anthracene	0.0160	0.00500	"	0.0333	48.0	40-140
Benzo (a) pyrene	0.0170	0.00500	"	0.0333	51.1	40-140
Benzo (b) fluoranthene	0.0160	0.00500	"	0.0333	47.9	40-140
Benzo (k) fluoranthene	0.0157	0.00500	"	0.0333	47.1	40-140
Chrysene	0.0159	0.00500	"	0.0333	47.6	40-140
Dibenz (a,h) anthracene	0.0168	0.00500	"	0.0333	50.4	40-140
Fluoranthene	0.0167	0.00500	"	0.0333	50.2	40-140
Fluorene	0.0196	0.00500	"	0.0333	58.7	40-140
Indeno (1,2,3-cd) pyrene	0.0168	0.00500	"	0.0333	50.4	40-140
Pyrene	0.0163	0.00500	"	0.0333	48.8	40-140
1-Methylnaphthalene	0.0162	0.00500	"	0.0333	48.5	40-140
2-Methylnaphthalene	0.0162	0.00500	"	0.0333	48.6	40-140
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0164</i>		"	<i>0.0333</i>	<i>49.1</i>	<i>40-140</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0172</i>		"	<i>0.0333</i>	<i>51.5</i>	<i>40-140</i>

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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 BHK0713 - EPA 5030 Soil MS

Matrix Spike (BHK0713-MS1)	Source: 2411195-10			Prepared & Analyzed: 11/14/24							
Acenaphthene	0.0172	0.00500	mg/kg	0.0333	ND	51.5	40-140				
Anthracene	0.0152	0.00500	"	0.0333	ND	45.5	40-140				
Benzo (a) anthracene	0.0145	0.00500	"	0.0333	ND	43.4	40-140				
Benzo (a) pyrene	0.0142	0.00500	"	0.0333	ND	42.6	40-140				
Benzo (b) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.5	40-140				
Benzo (k) fluoranthene	0.0145	0.00500	"	0.0333	ND	43.5	40-140				
Chrysene	0.0138	0.00500	"	0.0333	ND	41.5	40-140				
Dibenz (a,h) anthracene	0.0146	0.00500	"	0.0333	ND	43.9	40-140				
Fluoranthene	0.0153	0.00500	"	0.0333	ND	45.9	40-140				
Fluorene	0.0166	0.00500	"	0.0333	ND	49.8	40-140				
Indeno (1,2,3-cd) pyrene	0.0140	0.00500	"	0.0333	ND	42.1	40-140				
Pyrene	0.0148	0.00500	"	0.0333	ND	44.3	40-140				
1-Methylnaphthalene	0.0148	0.00500	"	0.0333	ND	44.4	40-140				
2-Methylnaphthalene	0.0142	0.00500	"	0.0333	ND	42.7	40-140				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0139</i>		<i>"</i>	<i>0.0333</i>		<i>41.7</i>	<i>40-140</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0157</i>		<i>"</i>	<i>0.0333</i>		<i>47.2</i>	<i>40-140</i>				

Matrix Spike Dup (BHK0713-MSD1)	Source: 2411195-10			Prepared & Analyzed: 11/14/24						
Acenaphthene	0.0245	0.00500	mg/kg	0.0333	ND	73.5	40-140	35.2	30	QR-02
Anthracene	0.0168	0.00500	"	0.0333	ND	50.4	40-140	10.3	30	
Benzo (a) anthracene	0.0166	0.00500	"	0.0333	ND	49.8	40-140	13.8	30	
Benzo (a) pyrene	0.0162	0.00500	"	0.0333	ND	48.7	40-140	13.3	30	
Benzo (b) fluoranthene	0.0156	0.00500	"	0.0333	ND	46.7	40-140	14.1	30	
Benzo (k) fluoranthene	0.0149	0.00500	"	0.0333	ND	44.6	40-140	2.58	30	
Chrysene	0.0158	0.00500	"	0.0333	ND	47.5	40-140	13.6	30	
Dibenz (a,h) anthracene	0.0169	0.00500	"	0.0333	ND	50.6	40-140	14.1	30	
Fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	40-140	12.1	30	
Fluorene	0.0214	0.00500	"	0.0333	ND	64.1	40-140	25.0	30	
Indeno (1,2,3-cd) pyrene	0.0167	0.00500	"	0.0333	ND	50.0	40-140	17.2	30	
Pyrene	0.0163	0.00500	"	0.0333	ND	49.0	40-140	10.1	30	
1-Methylnaphthalene	0.0163	0.00500	"	0.0333	ND	48.8	40-140	9.59	30	
2-Methylnaphthalene	0.0161	0.00500	"	0.0333	ND	48.4	40-140	12.6	30	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0156</i>		<i>"</i>	<i>0.0333</i>		<i>46.9</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0179</i>		<i>"</i>	<i>0.0333</i>		<i>53.6</i>	<i>40-140</i>			

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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

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

Batch BHK0733 - EPA 3050B

Blank (BHK0733-BLK1)

Prepared & Analyzed: 11/14/24

Boron ND 2.00 mg/L

LCS (BHK0733-BS1)

Prepared & Analyzed: 11/14/24

Boron 4.72 2.00 mg/L 5.00 94.4 80-120

Duplicate (BHK0733-DUP1)

Source: 2411227-10

Prepared & Analyzed: 11/14/24

Boron 0.226 2.00 mg/L 0.245 8.04 20

Matrix Spike (BHK0733-MS1)

Source: 2411227-10

Prepared & Analyzed: 11/14/24

Boron 4.82 2.00 mg/L 5.00 0.245 91.5 75-125

Matrix Spike Dup (BHK0733-MSD1)

Source: 2411227-10

Prepared & Analyzed: 11/14/24

Boron 4.95 2.00 mg/L 5.00 0.245 94.1 75-125 2.61 25

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHK0737 - EPA 3050B

Blank (BHK0737-BLK1)

Prepared: 11/14/24 Analyzed: 11/15/24

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 (BHK0737-BS1)

Prepared: 11/14/24 Analyzed: 11/15/24

Arsenic	38.2	0.200	mg/kg wet	40.7	93.9	80-120
Barium	39.4	0.400	"	40.7	96.9	80-120
Cadmium	1.95	0.200	"	2.03	96.1	80-120
Copper	38.5	0.400	"	40.7	94.8	80-120
Lead	19.4	0.200	"	20.3	95.4	80-120
Nickel	41.0	0.400	"	40.7	101	80-120
Silver	2.29	0.0200	"	2.03	113	80-120
Zinc	38.0	0.400	"	40.7	93.5	80-120
Selenium	4.03	0.260	"	4.07	99.2	80-120

Duplicate (BHK0737-DUP1)

Source: 2408190-03

Prepared: 11/14/24 Analyzed: 11/15/24

Arsenic	5.30	0.200	mg/kg dry	4.86	8.53	20
Barium	136	0.400	"	137	1.17	20
Cadmium	0.391	0.200	"	0.366	6.58	20
Copper	13.2	0.400	"	12.5	4.78	20
Lead	12.7	0.200	"	12.1	4.77	20
Nickel	7.39	0.400	"	6.98	5.78	20
Silver	0.0672	0.0200	"	0.0724	7.47	20
Zinc	49.1	0.400	"	46.6	5.24	20
Selenium	0.207	0.260	"	ND	200	20

QR-01

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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 BHK0737 - EPA 3050B

Matrix Spike (BHK0737-MS1)

Source: 2408190-03

Prepared: 11/14/24 Analyzed: 11/15/24

Arsenic	43.1	0.200	mg/kg dry	42.7	4.86	89.4	75-125				
Barium	174	0.400	"	42.7	137	85.2	75-125				
Cadmium	2.41	0.200	"	2.14	0.366	95.6	75-125				
Copper	51.3	0.400	"	42.7	12.5	90.7	75-125				
Lead	32.2	0.200	"	21.4	12.1	93.9	75-125				
Nickel	27.5	0.400	"	42.7	6.98	48.0	75-125				QM-05
Silver	0.740	0.0200	"	2.14	0.0724	31.3	75-125				QM-05
Zinc	88.1	0.400	"	42.7	46.6	97.3	75-125				
Selenium	3.21	0.260	"	4.27	ND	75.2	75-125				

Matrix Spike Dup (BHK0737-MSD1)

Source: 2408190-03

Prepared: 11/14/24 Analyzed: 11/15/24

Arsenic	42.6	0.200	mg/kg dry	42.7	4.86	88.4	75-125	1.03	25		
Barium	170	0.400	"	42.7	137	76.2	75-125	2.25	25		
Cadmium	2.39	0.200	"	2.14	0.366	94.8	75-125	0.659	25		
Copper	51.2	0.400	"	42.7	12.5	90.6	75-125	0.107	25		
Lead	31.6	0.200	"	21.4	12.1	91.0	75-125	1.94	25		
Nickel	27.0	0.400	"	42.7	6.98	47.0	75-125	1.59	25		QM-05
Silver	0.748	0.0200	"	2.14	0.0724	31.6	75-125	1.03	25		QM-05
Zinc	87.2	0.400	"	42.7	46.6	95.1	75-125	1.06	25		
Selenium	3.29	0.260	"	4.27	ND	77.0	75-125	2.38	25		

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHK0739 - 3060A Mod

Blank (BHK0739-BLK1)

Prepared & Analyzed: 11/14/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHK0739-BS1)

Prepared & Analyzed: 11/14/24

Chromium, Hexavalent 26.0 0.30 mg/kg wet 25.0 104 80-120

Duplicate (BHK0739-DUP1)

Source: 2411061-01

Prepared & Analyzed: 11/14/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHK0739-MS1)

Source: 2411061-01

Prepared & Analyzed: 11/14/24

Chromium, Hexavalent 26.2 0.30 mg/kg dry 25.5 ND 103 75-125

Matrix Spike Dup (BHK0739-MSD1)

Source: 2411061-01

Prepared & Analyzed: 11/14/24

Chromium, Hexavalent 26.4 0.30 mg/kg dry 25.5 ND 103 75-125 0.777 20

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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

Summit Scientific

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

Batch BHK0698 - General Preparation

Blank (BHK0698-BLK1)

Prepared: 11/13/24 Analyzed: 11/14/24

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

LCS (BHK0698-BS1)

Prepared: 11/13/24 Analyzed: 11/14/24

Calcium	5.59	0.0500	mg/L wet	5.00		112	70-130			
Magnesium	4.85	0.0500	"	5.00		97.0	70-130			
Sodium	4.77	0.0500	"	5.00		95.5	70-130			

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
 Project Manager: Mike Medina

Reported:
 11/18/24 14:06

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

Summit Scientific

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

Batch BHK0714 - General Preparation

Duplicate (BHK0714-DUP1)

Source: 2411170-05

Prepared & Analyzed: 11/14/24

% Solids	86.5		%		87.0			0.583	20	
----------	------	--	---	--	------	--	--	-------	----	--

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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 BHK0701 - General Preparation

Blank (BHK0701-BLK1)

Prepared: 11/13/24 Analyzed: 11/15/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHK0701-BS1)

Prepared: 11/13/24 Analyzed: 11/15/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHK0701-DUP1)

Source: 2411225-01

Prepared: 11/13/24 Analyzed: 11/15/24

Specific Conductance (EC) 0.166 0.0100 mmhos/cm 0.172 3.25 20

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

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

Summit Scientific

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

Batch BHK0705 - General Preparation

LCS (BHK0705-BS1)

Prepared: 11/13/24 Analyzed: 11/15/24

pH	9.26	pH Units	9.18	101	95-105
----	------	----------	------	-----	--------

Duplicate (BHK0705-DUP1)

Source: 2411225-01

Prepared: 11/13/24 Analyzed: 11/15/24

pH	8.21	pH Units	8.23	0.243	20
----	------	----------	------	-------	----

Summit Scientific

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



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

Project: Noble - Wolfe USX CC07-13, 16 Tank Battery

Project Number: [none]
Project Manager: Mike Medina

Reported:
11/18/24 14:06

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- 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