

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 31, 2025

Bryce Goldade

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Work Order #2501361

Enclosed are the results of analyses for samples received by Summit Scientific on 01/24/25 17:50. 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 - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

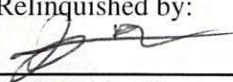
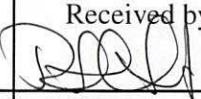
Reported:
03/31/25 12:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@0-6"	2501361-01	Soil	01/24/25 10:51	01/24/25 17:50
BKG01@0-6"	2501361-02	Soil	01/24/25 11:40	01/24/25 17:50
BKG01@3'	2501361-03	Soil	01/24/25 11:42	01/24/25 17:50
BKG01@4'	2501361-04	Soil	01/24/25 11:46	01/24/25 17:50
BKG02@0-6"	2501361-05	Soil	01/24/25 12:05	01/24/25 17:50
BKG02@3'	2501361-06	Soil	01/24/25 12:08	01/24/25 17:50
BKG02@4'	2501361-07	Soil	01/24/25 12:15	01/24/25 17:50

	Send Data To:	Send Invoice To:
Client: Noble/Tasman	Project Manager: Bryce Goldade	Company: Noble
Address: 6855 W. 119th Ave.	E-Mail: tas-chevron-4@tasman-geo.com	Project Name/Location: Jepsen T3N-R65W-52 L04 TB
City/State/Zip: Broomfield/CO/ 80020	E-Mail: RBUEUF27@chevron.com	AFE#: UWRWE - A3069 - ABN
Phone: 720-481-5294	Project Name: Jepsen T3N-R65W-52 L04 TANK BUTTER	PO/Billing Codes:
Sampler Name: Deric Bell	Project Number:	Contact: Miguel Barron

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested							Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS		HOLD	
1	PS ASTO1E0-6"	1/24/25	1051	3			3			X			X	X	X	X	X	X	X		SAR, EC, pH by saturated paste
2	BKG01E0-6"		1140										X	X		X	X	X			
3	BKG01E3'		1142																		
4	BKG01E4'		1146																		
5	BKG02E0-6"		1205																		
6	BKG02E3'		1208																		
7	BKG02E4'		1215																		
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: 	Date/Time: 1/24/25 1519	Received by: Tasman Lock Box	Date/Time: 1/24/25 1519	TAT Business Days	Field DO	Notes: ASTO1E0-6" Same as TAT for Base Organics all else Run on standard
Relinquished by: Tasman Lock Box	Date/Time: 1/24/25 1750	Received by: 	Date/Time: 1/24/25 1750	Same Day <input checked="" type="checkbox"/>	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard <input checked="" type="checkbox"/>	Field Turb.	
Temperature Upon Receipt: 4.1	Corrected Temperature: 6	IR gun #: 1	HNO3 lot #:			



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Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

AST01@0-6"
2501361-01 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIA1164	01/24/25	01/25/25	EPA 8260B	
Toluene	0.019	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.017	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.15	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.075	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.053	0.0050		"	"	"	"	"	"	
Naphthalene	0.010	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.3	0.50		"	"	"	"	"	"	

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0430	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIA1165	01/24/25	01/25/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	13.3	106 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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2501361-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA1221	01/28/25	02/03/25	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	0.0120	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0226	67.9 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0218	65.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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AST01@0-6"
2501361-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.12	0.200	mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	38.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.31	0.400	"	"	"	"	"	"	
Lead	4.06	0.200	"	"	"	"	"	"	
Nickel	2.52	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	11.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	70.7	0.0500	mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	8.36	0.0500	"	"	"	"	"	"	
Sodium	3.10	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0929	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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2501361-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.0			%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.456	0.0100		mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.59			pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

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BKG01@0-6''
2501361-02 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.884	0.200	mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	21.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.90	0.400	"	"	"	"	"	"	
Lead	5.46	0.200	"	"	"	"	"	"	
Nickel	1.57	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.03	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	199	0.0500	mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	44.3	0.0500	"	"	"	"	"	"	
Sodium	1.69	0.0500	"	"	"	"	"	"	

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Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG01@0-6''
2501361-02 (Soil)

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Calculated Analysis

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0282	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.2		%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0578	0.0100	mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.15		pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

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Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG01@3'
2501361-03 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.795	0.200	mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	29.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.63	0.400	"	"	"	"	"	"	
Lead	2.40	0.200	"	"	"	"	"	"	
Nickel	1.76	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.30	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	32.5	0.0500	mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	7.07	0.0500	"	"	"	"	"	"	
Sodium	1.14	0.0500	"	"	"	"	"	"	

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BKG01@3'
2501361-03 (Soil)

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Calculated Analysis

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0472	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.8		%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.105	0.0100	mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.65		pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

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Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG01@4'
2501361-04 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.849	0.200		mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	32.3	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	1.66	0.400		"	"	"	"	"	"	
Lead	2.50	0.200		"	"	"	"	"	"	
Nickel	1.88	0.400		"	"	"	"	"	"	
Silver	ND	0.0200		"	"	"	"	"	"	
Zinc	7.73	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	31.8	0.0500		mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	7.34	0.0500		"	"	"	"	"	"	
Sodium	0.557	0.0500		"	"	"	"	"	"	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG01@4'
2501361-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0231	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.5		%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0143	0.0100	mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.49		pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG02@0-6''
2501361-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.920	0.200	mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	22.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.05	0.400	"	"	"	"	"	"	
Lead	4.82	0.200	"	"	"	"	"	"	
Nickel	1.82	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.55	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	55.0	0.0500	mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	9.93	0.0500	"	"	"	"	"	"	
Sodium	1.27	0.0500	"	"	"	"	"	"	

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG02@0-6''
2501361-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0414	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.5		%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.166	0.0100	mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.08		pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

Summit Scientific

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG02@3'
2501361-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Boron	ND	2.00		mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	1.01	0.200		mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	40.8	0.400		"	"	"	"	"	"	
Cadmium	ND	0.200		"	"	"	"	"	"	
Copper	2.08	0.400		"	"	"	"	"	"	
Lead	2.95	0.200		"	"	"	"	"	"	
Nickel	2.28	0.400		"	"	"	"	"	"	
Silver	0.0215	0.0200		"	"	"	"	"	"	
Zinc	9.36	0.400		"	"	"	"	"	"	
Selenium	ND	0.260		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	18.1	0.0500		mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	4.28	0.0500		"	"	"	"	"	"	
Sodium	0.575	0.0500		"	"	"	"	"	"	

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Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG02@3'
2501361-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0316	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.7		%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0103	0.0100	mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.18		pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG02@4'
2501361-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BIB1393	02/25/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.820	0.200	mg/kg dry	1	BIC0411	03/07/25	03/20/25	EPA 6020B	
Barium	33.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.74	0.400	"	"	"	"	"	"	
Lead	2.54	0.200	"	"	"	"	"	"	
Nickel	1.94	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.81	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0407	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	35.9	0.0500	mg/L dry	1	BIB0982	02/18/25	02/28/25	EPA 6020B	
Magnesium	8.41	0.0500	"	"	"	"	"	"	
Sodium	0.947	0.0500	"	"	"	"	"	"	

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

BKG02@4'
2501361-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0370	0.00100	units	1	BIB1674	02/28/25	02/28/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.5		%	1	BIB0456	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0182	0.0100	mmhos/cm	1	BIB0985	02/18/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.72		pH Units	1	BIB0984	02/18/25	02/19/25	EPA 9045D	

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIA1164 - EPA 5030 Soil MS

Blank (BIA1164-BLK1)

Prepared & Analyzed: 01/24/25

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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0426		"	0.0400		106	50-150			
<i>Surrogate: Toluene-d8</i>	0.0399		"	0.0400		99.8	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0412		"	0.0400		103	50-150			

LCS (BIA1164-BS1)

Prepared & Analyzed: 01/24/25

Benzene	0.109	0.0020	mg/kg	0.100		109	70-130			
Toluene	0.109	0.0050	"	0.100		109	70-130			
Ethylbenzene	0.108	0.0050	"	0.100		108	70-130			
m,p-Xylene	0.219	0.010	"	0.200		110	70-130			
o-Xylene	0.109	0.0050	"	0.100		109	70-130			
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130			
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130			
Naphthalene	0.115	0.0038	"	0.100		115	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0419		"	0.0400		105	50-150			
<i>Surrogate: Toluene-d8</i>	0.0405		"	0.0400		101	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0406		"	0.0400		102	50-150			

Matrix Spike (BIA1164-MS1)

Source: 2501353-01

Prepared & Analyzed: 01/24/25

Benzene	0.113	0.0020	mg/kg	0.100	ND	113	70-130			
Toluene	0.113	0.0050	"	0.100	ND	113	70-130			
Ethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130			
m,p-Xylene	0.223	0.010	"	0.200	ND	111	70-130			
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130			
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130			
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130			
Naphthalene	0.118	0.0038	"	0.100	ND	118	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0414		"	0.0400		104	50-150			
<i>Surrogate: Toluene-d8</i>	0.0410		"	0.0400		102	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0404		"	0.0400		101	50-150			

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIA1164 - EPA 5030 Soil MS

Matrix Spike Dup (BIA1164-MSD1)	Source: 2501353-01			Prepared & Analyzed: 01/24/25						
Benzene	0.109	0.0020	mg/kg	0.100	ND	109	70-130	3.32	30	
Toluene	0.110	0.0050	"	0.100	ND	110	70-130	3.29	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	1.47	30	
m,p-Xylene	0.219	0.010	"	0.200	ND	110	70-130	1.41	30	
o-Xylene	0.110	0.0050	"	0.100	ND	110	70-130	0.762	30	
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	0.439	30	
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	0.110	30	
Naphthalene	0.116	0.0038	"	0.100	ND	116	70-130	1.39	30	
Surrogate: 1,2-Dichloroethane-d4	0.0409		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		103	50-150			

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIA1165 - EPA 3550A

Blank (BIA1165-BLK1)

Prepared & Analyzed: 01/24/25

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	18.1		"	12.5		144	30-150			

LCS (BIA1165-BS1)

Prepared & Analyzed: 01/24/25

C10-C28 (DRO)	641	50	mg/kg	500		128	70-130			
Surrogate: <i>o</i> -Terphenyl	18.3		"	12.5		146	30-150			

Matrix Spike (BIA1165-MS1)

Source: 2501353-01

Prepared & Analyzed: 01/24/25

C10-C28 (DRO)	533	50	mg/kg	500	31.5	100	70-130			
Surrogate: <i>o</i> -Terphenyl	9.07		"	12.5		72.6	30-150			

Matrix Spike Dup (BIA1165-MSD1)

Source: 2501353-01

Prepared & Analyzed: 01/24/25

C10-C28 (DRO)	548	50	mg/kg	500	31.5	103	70-130	2.75	20	
Surrogate: <i>o</i> -Terphenyl	12.1		"	12.5		96.7	30-150			

Summit Scientific

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Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BIA1221 - EPA 5030 Soil MS

Blank (BIA1221-BLK1)

Prepared: 01/28/25 Analyzed: 02/02/25

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0227		"	0.0333	68.0	40-140					
Surrogate: Fluoranthene-d10	0.0234		"	0.0333	70.2	40-140					

LCS (BIA1221-BS1)

Prepared: 01/28/25 Analyzed: 02/02/25

Acenaphthene	0.0154	0.00500	mg/kg	0.0333	46.2	40-140					
Anthracene	0.0150	0.00500	"	0.0333	45.0	40-140					
Benzo (a) anthracene	0.0158	0.00500	"	0.0333	47.3	40-140					
Benzo (a) pyrene	0.0146	0.00500	"	0.0333	43.9	40-140					
Benzo (b) fluoranthene	0.0168	0.00500	"	0.0333	50.5	40-140					
Benzo (k) fluoranthene	0.0144	0.00500	"	0.0333	43.3	40-140					
Chrysene	0.0156	0.00500	"	0.0333	46.9	40-140					
Dibenz (a,h) anthracene	0.0154	0.00500	"	0.0333	46.2	40-140					
Fluoranthene	0.0157	0.00500	"	0.0333	47.1	40-140					
Fluorene	0.0186	0.00500	"	0.0333	55.9	40-140					
Indeno (1,2,3-cd) pyrene	0.0221	0.00500	"	0.0333	66.4	40-140					
Pyrene	0.0166	0.00500	"	0.0333	49.9	40-140					
1-Methylnaphthalene	0.0168	0.00500	"	0.0333	50.5	40-140					
2-Methylnaphthalene	0.0183	0.00500	"	0.0333	54.9	40-140					
Surrogate: 2-Methylnaphthalene-d10	0.0163		"	0.0333	48.9	40-140					
Surrogate: Fluoranthene-d10	0.0157		"	0.0333	47.0	40-140					

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIA1221 - EPA 5030 Soil MS

Matrix Spike (BIA1221-MS1)	Source: 2501267-01			Prepared: 01/28/25 Analyzed: 02/02/25						
Acenaphthene	0.0223	0.00500	mg/kg	0.0333	ND	66.8	40-140			
Anthracene	0.0226	0.00500	"	0.0333	ND	67.9	40-140			
Benzo (a) anthracene	0.0240	0.00500	"	0.0333	ND	72.0	40-140			
Benzo (a) pyrene	0.0220	0.00500	"	0.0333	ND	66.1	40-140			
Benzo (b) fluoranthene	0.0200	0.00500	"	0.0333	ND	60.0	40-140			
Benzo (k) fluoranthene	0.0211	0.00500	"	0.0333	ND	63.2	40-140			
Chrysene	0.0232	0.00500	"	0.0333	ND	69.7	40-140			
Dibenz (a,h) anthracene	0.0259	0.00500	"	0.0333	ND	77.7	40-140			
Fluoranthene	0.0240	0.00500	"	0.0333	ND	72.0	40-140			
Fluorene	0.0260	0.00500	"	0.0333	ND	78.0	40-140			
Indeno (1,2,3-cd) pyrene	0.0239	0.00500	"	0.0333	ND	71.7	40-140			
Pyrene	0.0258	0.00500	"	0.0333	ND	77.3	40-140			
1-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.6	40-140			
2-Methylnaphthalene	0.0296	0.00500	"	0.0333	ND	88.8	40-140			
Surrogate: 2-Methylnaphthalene-d10	0.0256		"	0.0333		76.9	40-140			
Surrogate: Fluoranthene-d10	0.0233		"	0.0333		70.0	40-140			

Matrix Spike Dup (BIA1221-MSD1)	Source: 2501267-01			Prepared: 01/28/25 Analyzed: 02/02/25						
Acenaphthene	0.0147	0.00500	mg/kg	0.0333	ND	44.1	40-140	40.9	30	QR-02
Anthracene	0.0139	0.00500	"	0.0333	ND	41.6	40-140	48.0	30	QR-02
Benzo (a) anthracene	0.0146	0.00500	"	0.0333	ND	43.8	40-140	48.8	30	QR-02
Benzo (a) pyrene	0.0147	0.00500	"	0.0333	ND	44.0	40-140	40.1	30	QR-02
Benzo (b) fluoranthene	0.0149	0.00500	"	0.0333	ND	44.7	40-140	29.2	30	
Benzo (k) fluoranthene	0.0143	0.00500	"	0.0333	ND	42.9	40-140	38.2	30	QR-02
Chrysene	0.0138	0.00500	"	0.0333	ND	41.5	40-140	50.6	30	QR-02
Dibenz (a,h) anthracene	0.0174	0.00500	"	0.0333	ND	52.1	40-140	39.5	30	QR-02
Fluoranthene	0.0142	0.00500	"	0.0333	ND	42.7	40-140	51.0	30	QR-02
Fluorene	0.0186	0.00500	"	0.0333	ND	55.8	40-140	33.2	30	QR-02
Indeno (1,2,3-cd) pyrene	0.0171	0.00500	"	0.0333	ND	51.4	40-140	33.0	30	QR-02
Pyrene	0.0148	0.00500	"	0.0333	ND	44.4	40-140	54.1	30	QR-02
1-Methylnaphthalene	0.0173	0.00500	"	0.0333	ND	52.0	40-140	42.0	30	QR-02
2-Methylnaphthalene	0.0190	0.00500	"	0.0333	ND	56.9	40-140	43.7	30	QR-02
Surrogate: 2-Methylnaphthalene-d10	0.0168		"	0.0333		50.5	40-140			
Surrogate: Fluoranthene-d10	0.0144		"	0.0333		43.1	40-140			

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIB1393 - EPA 3050B

Blank (BIB1393-BLK1)

Prepared: 02/25/25 Analyzed: 03/11/25

Boron ND 2.00 mg/L

LCS (BIB1393-BS1)

Prepared: 02/25/25 Analyzed: 03/11/25

Boron 4.94 2.00 mg/L 5.00 98.8 80-120

Duplicate (BIB1393-DUP1)

Source: 2501357-07

Prepared: 02/25/25 Analyzed: 03/11/25

Boron ND 2.00 mg/L ND 20

Matrix Spike (BIB1393-MS1)

Source: 2501357-07

Prepared: 02/25/25 Analyzed: 03/11/25

Boron 5.01 2.00 mg/L 5.00 ND 100 75-125

Matrix Spike Dup (BIB1393-MSD1)

Source: 2501357-07

Prepared: 02/25/25 Analyzed: 03/11/25

Boron 5.08 2.00 mg/L 5.00 ND 102 75-125 1.35 25

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIC0411 - EPA 3050B

Blank (BIC0411-BLK1)

Prepared: 03/07/25 Analyzed: 03/19/25

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 (BIC0411-BS1)

Prepared: 03/07/25 Analyzed: 03/19/25

Arsenic	39.8	0.200	mg/kg wet	41.3	96.4	80-120
Barium	40.0	0.400	"	41.3	96.7	80-120
Cadmium	1.91	0.200	"	2.07	92.6	80-120
Copper	39.5	0.400	"	41.3	95.5	80-120
Lead	19.2	0.200	"	20.7	92.8	80-120
Nickel	39.5	0.400	"	41.3	95.5	80-120
Silver	1.93	0.0200	"	2.07	93.5	80-120
Zinc	38.3	0.400	"	41.3	92.6	80-120
Selenium	3.90	0.260	"	4.13	94.4	80-120

Duplicate (BIC0411-DUP1)

Source: 2501356-01

Prepared: 03/07/25 Analyzed: 03/19/25

Arsenic	1.66	0.200	mg/kg dry	1.56	6.22	20
Barium	591	0.400	"	646	8.91	20
Cadmium	0.378	0.200	"	0.372	1.55	20
Copper	3.78	0.400	"	3.53	6.87	20
Lead	15.1	0.200	"	9.78	42.4	20
Nickel	4.70	0.400	"	4.39	6.82	20
Silver	0.0274	0.0200	"	0.0249	9.76	20
Zinc	17.3	0.400	"	16.4	5.39	20
Selenium	ND	0.260	"	ND		20

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIC0411 - EPA 3050B

Matrix Spike (BIC0411-MS1)

Source: 2501356-01

Prepared: 03/07/25 Analyzed: 03/19/25

Arsenic	25.1	0.200	mg/kg dry	41.9	1.56	56.1	75-125				QM-05
Barium	638	0.400	"	41.9	646	NR	75-125				QM-05
Cadmium	2.40	0.200	"	2.09	0.372	96.7	75-125				
Copper	26.7	0.400	"	41.9	3.53	55.3	75-125				QM-05
Lead	28.7	0.200	"	20.9	9.78	90.1	75-125				
Nickel	28.0	0.400	"	41.9	4.39	56.4	75-125				QM-05
Silver	2.00	0.0200	"	2.09	0.0249	94.5	75-125				
Zinc	40.7	0.400	"	41.9	16.4	58.0	75-125				QM-05
Selenium	3.86	0.260	"	4.19	ND	92.0	75-125				

Matrix Spike Dup (BIC0411-MSD1)

Source: 2501356-01

Prepared: 03/07/25 Analyzed: 03/19/25

Arsenic	24.7	0.200	mg/kg dry	41.9	1.56	55.3	75-125	1.44	25		QM-05
Barium	658	0.400	"	41.9	646	28.2	75-125	3.01	25		QM-05
Cadmium	2.43	0.200	"	2.09	0.372	98.3	75-125	1.37	25		
Copper	26.1	0.400	"	41.9	3.53	54.0	75-125	2.14	25		QM-05
Lead	29.4	0.200	"	20.9	9.78	93.8	75-125	2.66	25		
Nickel	27.5	0.400	"	41.9	4.39	55.1	75-125	1.95	25		QM-05
Silver	2.05	0.0200	"	2.09	0.0249	96.5	75-125	2.07	25		
Zinc	39.9	0.400	"	41.9	16.4	56.2	75-125	1.82	25		QM-05
Selenium	3.89	0.260	"	4.19	ND	92.8	75-125	0.779	25		

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery
Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BIB0407 - 3060A Mod

Blank (BIB0407-BLK1)

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIB0407-BS1)

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent 23.6 0.30 mg/kg wet 25.0 94.2 80-120

Duplicate (BIB0407-DUP1)

Source: 2501355-01

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND ND 20

Matrix Spike (BIB0407-MS1)

Source: 2501355-01

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent 26.0 0.30 mg/kg dry 28.0 ND 93.0 75-125

Matrix Spike Dup (BIB0407-MSD1)

Source: 2501355-01

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent 25.8 0.30 mg/kg dry 28.0 ND 92.0 75-125 1.08 20

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIB0982 - General Preparation

Blank (BIB0982-BLK1)

Prepared: 02/18/25 Analyzed: 02/28/25

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

LCS (BIB0982-BS1)

Prepared: 02/18/25 Analyzed: 02/28/25

Calcium	5.20	0.0500	mg/L wet	5.00	104	70-130				
Magnesium	5.16	0.0500	"	5.00	103	70-130				
Sodium	4.50	0.0500	"	5.00	90.0	70-130				

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIB0456 - General Preparation

Duplicate (BIB0456-DUP1)

Source: 2501330-01

Prepared: 02/10/25 Analyzed: 02/11/25

% Solids	82.0		%		81.0			1.21		20	
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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

Summit Scientific

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

Batch BIB0985 - General Preparation

Blank (BIB0985-BLK1)

Prepared: 02/18/25 Analyzed: 02/19/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIB0985-BS1)

Prepared: 02/18/25 Analyzed: 02/19/25

Specific Conductance (EC) 1.40 0.0100 mmhos/cm 1.41 99.4 95-105

Duplicate (BIB0985-DUP1)

Source: 2501361-01

Prepared: 02/18/25 Analyzed: 02/19/25

Specific Conductance (EC) 0.454 0.0100 mmhos/cm 0.456 0.440 20

Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

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 BIB0984 - General Preparation

LCS (BIB0984-BS1)

Prepared: 02/18/25 Analyzed: 02/19/25

pH	9.06	pH Units	9.18	98.7	95-105
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Duplicate (BIB0984-DUP1)

Source: 2501361-01

Prepared: 02/18/25 Analyzed: 02/19/25

pH	7.57	pH Units	7.59	0.272	20
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Summit Scientific

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

Project: Noble - Jepsen T3N-R65W-S2 L04 Tank Battery

Project Number: UWRWE-A3069-ABN
Project Manager: Bryce Goldade

Reported:
03/31/25 12:50

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values. Only applies to source/DUP and MS/MSD pairs.
- 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.
- 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