






SITE NAME: Johnson C29-28							DATE: 7/2/2024	REM. PROJECT #: 34724	WEATHER: 80s cloudy	
SITE DIRECTIONS: CR 51 X CR 42, E on CR 42 0.1 mi, N into							CLIENT: Noble			
LEGALS AND LAT/LONG: 40.29107, -104.57536							TASMAN PERSONNEL: RY, DB			
SOIL TYPES: Well Graded Sand - SW							SURFACE GRADIENT: West			
SOIL SAMPLING							FACILITY INFRASTRUCTURE			
Date/Time	Soil Sample ID	PID (ppm)	Visual	Olfactory	Photo?	Grab or Lab Sample?	EQUIPMENT	Quantity	Photo?	
							Above Ground Storage Tank (AST)			
7/2/2024 12:00	FL01R-W@3'	0.0	No Staining	No Odor	Yes	Lab	Buried or Partially Buried Vessel			
7/2/2024 12:02	FL01-01@3'	0.3	No Staining	No Odor	Yes	Grab	Separator			
7/2/2024 12:05	FL01-02@3'	0.5	No Staining	No Odor	Yes	Lab	Emission Control Device (ECD)			
7/2/2024 12:10	FL01-03@3'	0.0	No Staining	No Odor	Yes	Lab	Dump Line			
7/2/2024 12:17	FL01-04@3'	0.0	No Staining	No Odor	Yes	Grab	Wellhead			
7/2/2024 12:20	FL01-05@3'	0.0	No Staining	No Odor	Yes	Grab	Flowline	1	✓	
7/2/2024 12:25	FL01-06@3'	0.1	No Staining	No Odor	Yes	Grab	Other:			
7/2/2024 12:30	BKG01@3'	0.0	No Staining	No Odor	Yes	Lab	Soil Loads Removed			
7/2/2024 13:54	FL01-07@3'	2.4	No Staining	No Odor	Yes	Grab	IMPACTED SOIL IDENTIFIED?			
7/2/2024 13:59	FL01-08@3'	0.2	No Staining	No Odor	Yes	Grab	ESTIMATED VOLUME OF IMPACTS:			
							Date	Number	CY	
							Total Removed	0	0	
							Disposal Facility:			
							Groundwater Recovery			
							DATE GW ENCOUNTERED:		DEPTH:	
							GROUNDWATER IN CONTACT WITH IMPACTED SOIL?			
							LNAPL OR SHEEN OBSERVED ON GW?			
GROUNDWATER SAMPLING							Date	BBLS		
Date/Time	Groundwater Sample ID	Depth Collected	Turbid?	Sheen?	Odor?	Photo?				
							Total Removed	0		
							Disposal Facility:			



							
Equipment ID: FL01R-W		Equipment Type:		Equipment ID: FL01-01		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions:				Notes/Conditions:			

					
Equipment ID: FL01-02		Equipment Type:			
Material:	Volume:	Contents:			
Notes/Conditions:					
Equipment ID: FL01-03		Equipment Type:			
Material:	Volume:	Contents:			
Notes/Conditions:					

							
Equipment ID: FL01-04		Equipment Type:		Equipment ID: FL01-05		Equipment Type:	
Material:		Volume:		Contents:		Material:	
Volume:		Contents:		Material:		Volume:	
Notes/Conditions:				Notes/Conditions:			

							
Equipment ID: FL01-06		Equipment Type:		Equipment ID: BKG01		Equipment Type:	
Material:	Volume:	Contents:		Material:	Volume:	Contents:	
Notes/Conditions:				Notes/Conditions:			



					
Equipment ID: FL01-07		Equipment Type:			
Material:	Volume:	Contents:			
Notes/Conditions:					
Equipment ID: FL01-08		Equipment Type:			
Material:	Volume:	Contents:			
Notes/Conditions:					

TABLE 1
FIELD DATA SUMMARY TABLE
NOBLE ENERGY, INC - 100322
JOHNSON C 29-28, WELD COUNTY, COLORADO
REM # 34724

Sample ID	Sample Date	Depth (ft. bgs)	GPS Data Latitude/Longitude		PDOP Value	VOC Concentration (ppm)
FL01R-W@3'	7/2/2024	3	40.291064	-104.575378	1.0	0.0
FL01-01@3'	7/2/2024	3	40.290923	-104.575649	0.8	0.3
FL01-02@3'	7/2/2024	3	40.290872	-104.575761	0.8	0.5
FL01-03@3'	7/2/2024	3	40.290822	-104.575922	0.9	0.0
FL01-04@3'	7/2/2024	3	40.290833	-104.576278	0.9	0.0
FL01-05@3'	7/2/2024	3	40.290850	-104.576857	0.9	0.0
FL01-06@3'	7/2/2024	3	40.290833	-104.577182	0.9	0.1
FL01-07@3'	7/2/2024	3	40.290844	-104.578008	0.8	2.4
FL01-08@3'	7/2/2024	3	40.290875	-104.578535	1.0	0.2
BKG01@3'	7/2/2024	3	40.291245	-104.575239	NC	0.0

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum (NAD) 83 UTMZone 13 North.
2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

in. = Inches

ft. = Feet

bgs = Below ground surface

NA = Not Applicable

NC = Data not collected

TABLE 2
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY, INC - 100322
JOHNSON C 29-28, WELD COUNTY, COLORADO
REM # 34724

Sample ID	Sample Date	Depth (ft. bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4- Trimethyl- Benzene (mg/kg)	1,3,5- Trimethyl- Benzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500**		
FL01-02@3'	07/02/2024	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50
FL01-03@3'	07/02/2024	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	0.0210	<500	<0.50	<50	<50
FL01R-W@3'	07/02/2024	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<500	<0.50	<50	<50

Notes:

- Bold** values exceed the ECMC Table 915-1 limit(s)
 - Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
 - * Indicates laboratory minimum detection limit in excess of SSL
 - ** Summation of GRO+DRO+ORO must be less than 500 mg/kg
- ECMC = Energy & Carbon Management Commission
 (<) = Analytical result is less than the indicated laboratory reporting limit.
 TPH-GRO = Total petroleum hydrocarbons - gasoline range organics
 TPH-DRO = Total petroleum hydrocarbons - diesel range organics
 TPH-ORO = Total petroleum hydrocarbons - oil range organics
 mg/kg = Milligrams per kilogram
 ft. = Feet
 bgs = Below ground surface

TABLE 3
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY, INC - 100322
JOHNSON C 29-28, WELD COUNTY, COLORADO
REM # 34724

Sample ID	Sample Date	Depth (ft. bgs)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3- cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01-02@3'	07/02/2024	3	0.663	0.745	0.994	0.682	0.942	0.370	0.938	0.131	2.84	0.750	0.411	2.23	0.116	0.234
FL01-03@3'	07/02/2024	3	0.376	0.701	1.07	0.739	1.03	0.411	1.04	0.160	2.89	0.464	0.464	2.24	0.0349	0.0774
FL01R-W@3'	07/02/2024	3	<0.00500	0.0111	0.0207	0.0138	0.0211	0.00516	0.0208	<0.00500	0.055	0.00727	0.0119	0.0453	<0.00500	<0.00500

Notes:

1. **Bold** values exceed the ECMC Table 915-1 limit(s)
 2. Pink & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
 3. * Indicates laboratory minimum detection limit in excess of SSL
- ECMC = Colorado Energy & Carbon Management Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
ft. = Feet
bgs = Below ground surface
mg/kg = Milligrams per kilogram

TABLE 4
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY, INC - 100322
JOHNSON C 29-28, WELD COUNTY, COLORADO
REM # 34724

Sample ID	Sample Date	Depth (ft. bgs)	pH (Standard Units)	EC (mmhos/cm)	SAR (Standard Units)	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01-02@3'	07/02/2024	3	8.07	0.460	2.08	<2.00
FL01-03@3'	07/02/2024	3	8.36	0.471	2.80	<2.00
FL01R-W@3'	07/02/2024	3	8.17	0.520	1.65	<2.00
BKG01@3'	07/02/2024	3	8.36	1.03	3.97	<2.00
Maximum Background Concentration			8.36	1.03	3.97	-

Notes:

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
2. **Bold** faced values exceed the ECMC Table 915-1 limit(s) above native background concentrations.
3. Brown highlighted soil analytical values indicate a regulatory exceedance.

ECMC = Colorado Energy & Carbon Management Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

(<) = Analytical result is less than the indicated laboratory reporting limit.

ft. = Feet

bgs = Below ground surface

TABLE 5
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY, INC - 100322
JOHNSON C 29-28, WELD COUNTY, COLORADO
REM # 34724

Sample ID	Sample Date	Depth (ft. bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) ^[4] (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
FL01-02@3'	07/02/2024	3	1.37	74.1	<0.179	<0.30	3.84	5.83	3.85	<0.232	0.127	17.0
FL01-03@3'	07/02/2024	3	1.58	76.8	<0.200	<0.30	4.48	6.74	4.12	<0.260	0.0525	17.6
FL01R-W@3'	07/02/2024	3	1.59	65.6	<0.200	<0.30	3.65	6.07	4.34	<0.260	0.0462	16.8
BKG01@3'	07/02/2024	3	1.16	74.8	<0.181	<0.30	2.95	5.05	4.21	<0.236	0.0233	15.5
Maximum Background Concentration			1.16	-	-	-	-	-	-	-	-	-
Maximum Background Concentration X 1.25			1.45	-	-	-	-	-	-	-	-	-

Notes:

1. **Bold** faced values exceed the ECMC Table 915-1 limit(s), but are within 1.25x background concentrations.
2. **Bold** faced values exceed the ECMC Table 915-1 limit(s) above native background concentrations.
3. Red & blue highlighted soil analytical values indicate an exceedance of the referenced soil screening level (SSL)
4. Compound falls within ECMC Table 915-1 Footnote 9.
5. Non-detect background results accounted for in the highest background concentration by using the reporting limit.

ECMC = Energy & Carbon Management Commission

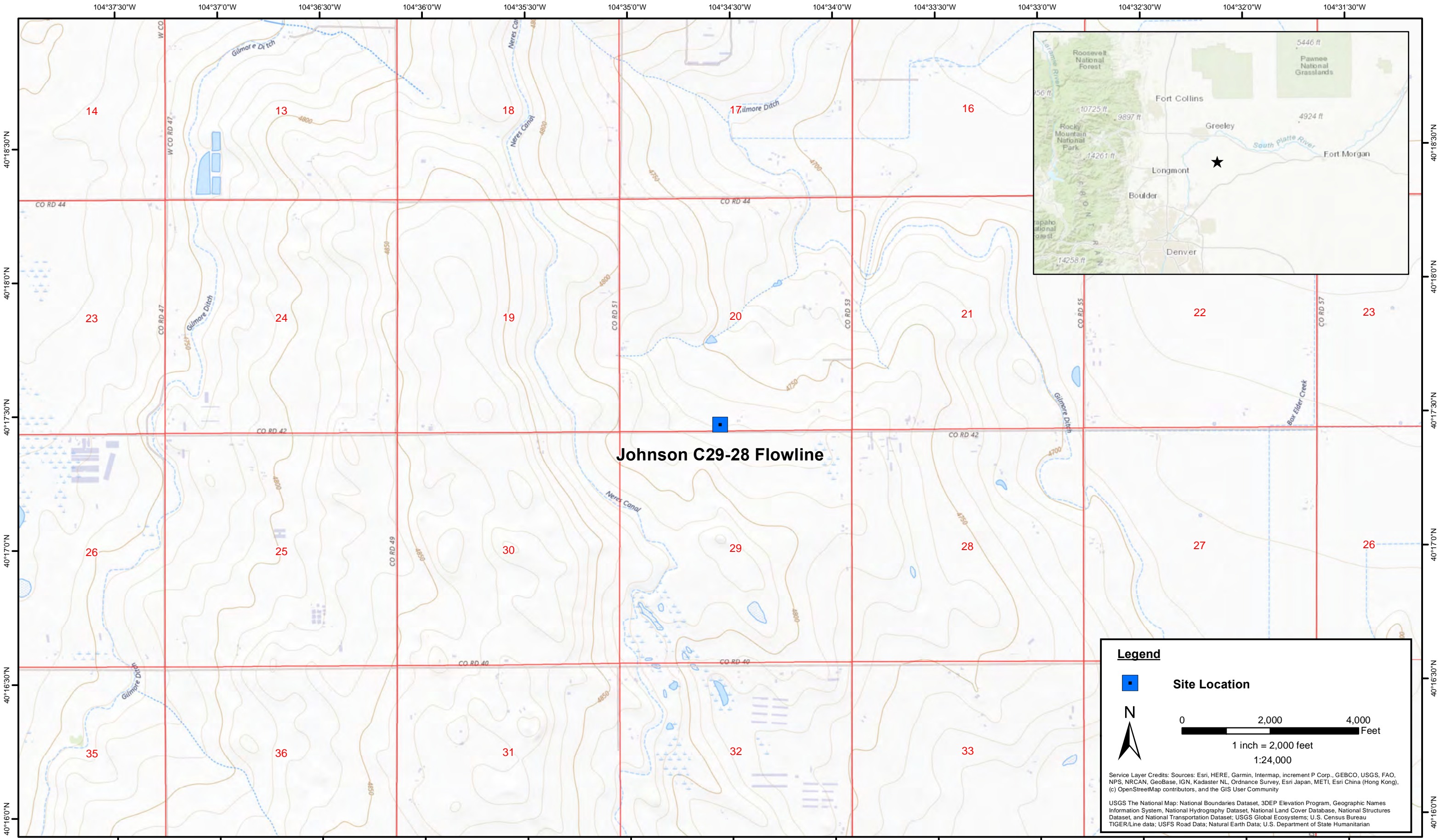
(<) = Analytical result is less than the indicated laboratory reporting limit.


mg/kg = Milligrams per kilogram

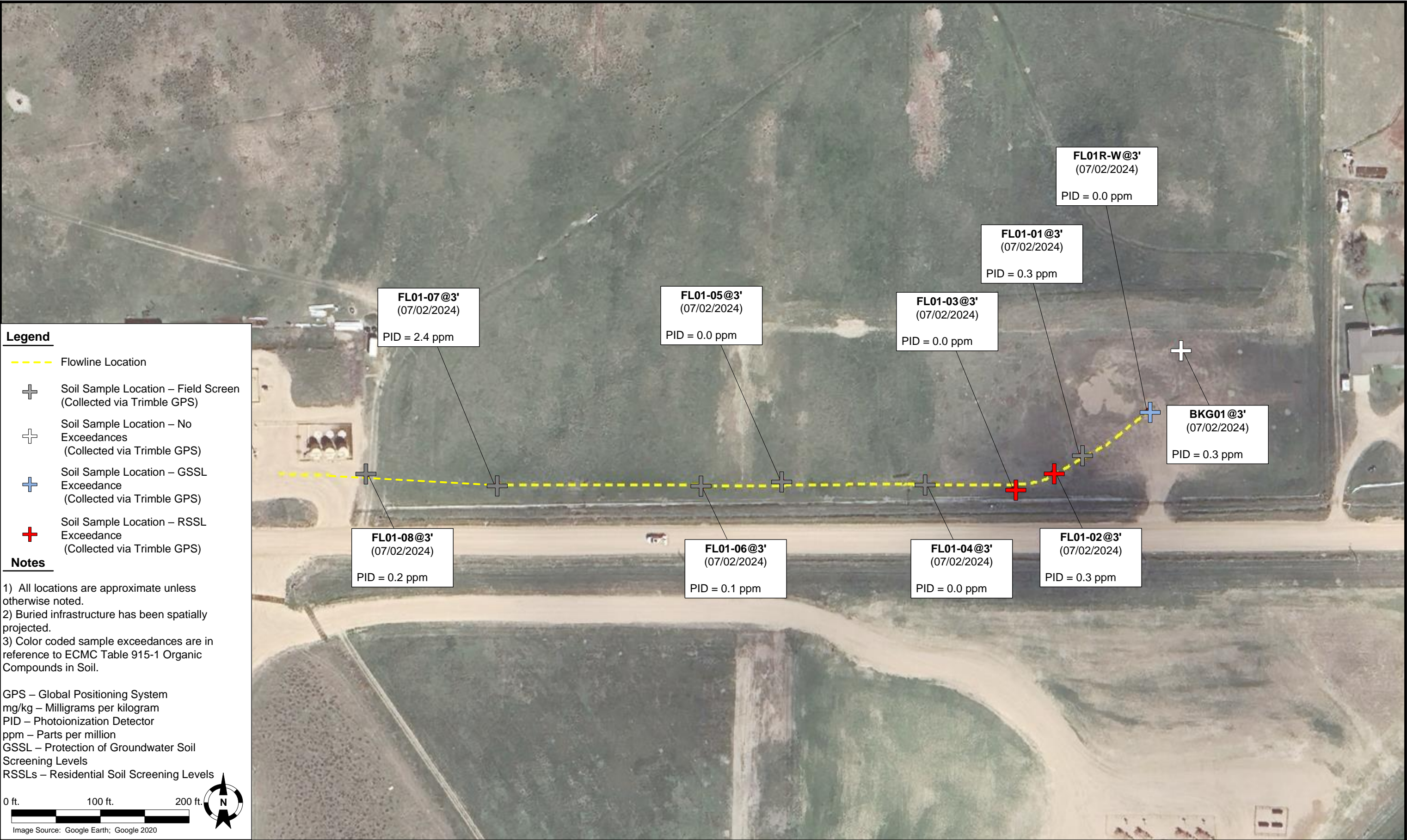
ft. = Feet

bgs = Below ground surface

* Indicates laboratory minimum detection limit in excess of SSL



DATE: July 2024	 Tasman, Inc. 6855 W. 119th Ave Broomfield, CO 80020	Noble Energy, Inc. – DJ Basin Johnson C29-28 Flowline SESW, Section 20, Township 4 North, Range 64 West Weld County, Colorado	Site Location Map	Figure 1
DESIGNED BY: B. Nelson				
DRAWN BY: J. Clonts				



Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 12, 2024

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Johnson C29-28 FL

Work Order #2407037

Enclosed are the results of analyses for samples received by Summit Scientific on 07/02/24 17:48. 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 fluid and cursive, written in a professional style.

Natalie Tessier For Paul Shrewsbury

President



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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

ANALYTICAL REPORT FOR SAMPLES


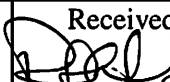
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01R-W@3'	2407037-01	Soil	07/02/24 12:00	07/02/24 17:48
FL01-02@3'	2407037-02	Soil	07/02/24 12:05	07/02/24 17:48
FL01-03@3'	2407037-03	Soil	07/02/24 12:10	07/02/24 17:48
BKG01@3'	2407037-04	Soil	07/02/24 12:30	07/02/24 17:48

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.

		Send Data To:	Send Invoice To:
Client: Noble/Tasman	Project Manager: Jake Whritenour		Company: Noble
Address: 6855 W. 119th Ave.	E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location: Johnson C2A-28 FL
City/State/Zip: Broomfield/CO/ 80020			AFE#: UWRWE-A3072-ABN
Phone:	Project Name: Johnson C2A-28 FL		PO/Billing Codes:
Sampler Name: Ryan Yavinsky / Deric Bell	Project Number:		Contact: Dan Peterson Miguel Barron

					Preservative				Matrix				Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other_____	Water	Soil	Air-Canister #	Other_____	VOC -915	TPH - 915	PAH - 915	Metals - 915	pH, EC, SAR	Boron - HWS	HOLD			
1	FL012-we3'	7/2/24	1200	3			3			X			X	X	X	X	X	X				
2	FL01-02@3'	I	1205	I			I			I			I	I	I	I	I	I				
3	FL01-03@3'	I	1210	I			I			I			I	I	I	I	I	I				
4	BK601@3'	I	1230	I			I			I						I	I					
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by: 	Date/Time: 7/2/24 1600	Received by: Tasman Lock Box	Date/Time: 7/2/24 1600	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lock Box	Date/Time: 7/2/24 1748	Received by: 	Date/Time: 7/2/24 1748	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 11.7	Corrected Temperature: 9	IR gun #:		HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2407037

Client: Noble Gasman Client Project ID: Johnson C29-28FLShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☐ ☒ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽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"/>	an 2 CE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe 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

Date/Time



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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01R-W@3'
2407037-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHG0102	07/03/24	07/04/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0410	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0381	95.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0103	07/03/24	07/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	10.3	82.7 %	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 - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01R-W@3'
2407037-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0098	07/03/24	07/04/24	EPA 8270D SIM	
Anthracene	0.0111	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0207	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0138	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0211	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00516	0.00500	"	"	"	"	"	"	
Chrysene	0.0208	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0550	0.00500	"	"	"	"	"	"	
Fluorene	0.00727	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0119	0.00500	"	"	"	"	"	"	
Pyrene	0.0453	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0170	51.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0170	51.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0114	07/03/24	07/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01R-W@3'
2407037-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.59	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Barium	65.6	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.65	0.400	"	"	"	"	"	"
Lead	6.07	0.200	"	"	"	"	"	"
Nickel	4.34	0.400	"	"	"	"	"	"
Silver	0.0462	0.0200	"	"	"	"	"	"
Zinc	16.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0108	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	44.6	0.0500	mg/L dry	1	BHG0163	07/08/24	07/11/24	EPA 6020B	
Magnesium	11.2	0.0500	"	"	"	"	"	"	
Sodium	47.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.65	0.00100	units	1	BHG0333	07/12/24	07/12/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01R-W@3'
2407037-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.0		%	1	BHG0118	07/03/24	07/03/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.520	0.0100	mmhos/cm	1	BHG0189	07/08/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/02/24 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BHG0188	07/08/24	07/09/24	EPA 9045D	

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-02@3'
2407037-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHG0102	07/03/24	07/04/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0418	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0383	95.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0103	07/03/24	07/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.6	92.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-02@3'
2407037-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	0.663	0.100	mg/kg	20	BHG0098	07/03/24	07/08/24	EPA 8270D SIM	
Anthracene	0.745	0.100	"	"	"	"	"	"	
Benzo (a) anthracene	0.994	0.100	"	"	"	"	"	"	
Benzo (a) pyrene	0.682	0.100	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.942	0.100	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.370	0.100	"	"	"	"	"	"	
Chrysene	0.938	0.100	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.131	0.00500	"	1	"	"	07/04/24	"	
Fluoranthene	2.84	0.100	"	20	"	"	07/08/24	"	
Fluorene	0.750	0.100	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.411	0.100	"	"	"	"	"	"	
Pyrene	2.23	0.100	"	"	"	"	"	"	
1-Methylnaphthalene	0.116	0.00500	"	1	"	"	07/04/24	"	
2-Methylnaphthalene	0.234	0.00500	"	"	"	"	"	"	E

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0160	48.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0186	55.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHG0114	07/03/24	07/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.37	0.179	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B	

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-02@3'
2407037-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	74.1	0.357	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Cadmium	ND	0.179	"	"	"	"	"	"
Copper	3.84	0.357	"	"	"	"	"	"
Lead	5.83	0.179	"	"	"	"	"	"
Nickel	3.85	0.357	"	"	"	"	"	"
Silver	0.127	0.0179	"	"	"	"	"	"
Zinc	17.0	0.357	"	"	"	"	"	"
Selenium	ND	0.232	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0108	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.8	0.0500	mg/L dry	1	BHG0163	07/08/24	07/11/24	EPA 6020B	
Magnesium	6.72	0.0500	"	"	"	"	"	"	
Sodium	48.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.08	0.00100	units	1	BHG0333	07/12/24	07/12/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 12:05**

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-02@3'
2407037-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	93.9	%	1	BHG0118	07/03/24	07/03/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.460	0.0100	mmhos/cm	1	BHG0189	07/08/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/02/24 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.07		pH Units	1	BHG0188	07/08/24	07/09/24	EPA 9045D	

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-03@3'
2407037-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHG0102	07/03/24	07/04/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.021	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0417	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	95.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0103	07/03/24	07/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.2	81.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-03@3'
2407037-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	0.376	0.100	mg/kg	20	BHG0098	07/03/24	07/08/24	EPA 8270D SIM	
Anthracene	0.701	0.100	"	"	"	"	"	"	
Benzo (a) anthracene	1.07	0.100	"	"	"	"	"	"	
Benzo (a) pyrene	0.739	0.100	"	"	"	"	"	"	
Benzo (b) fluoranthene	1.03	0.100	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.411	0.100	"	"	"	"	"	"	
Chrysene	1.04	0.100	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.160	0.00500	"	1	"	"	07/04/24	"	
Fluoranthene	2.89	0.100	"	20	"	"	07/08/24	"	
Fluorene	0.464	0.100	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.464	0.100	"	"	"	"	"	"	
Pyrene	2.24	0.100	"	"	"	"	"	"	
1-Methylnaphthalene	0.0349	0.00500	"	1	"	"	07/04/24	"	
2-Methylnaphthalene	0.0774	0.00500	"	"	"	"	"	"	

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0163	48.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0206	61.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHG0114	07/03/24	07/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.58	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B	

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-03@3'
2407037-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	76.8	0.400	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.48	0.400	"	"	"	"	"	"
Lead	6.74	0.200	"	"	"	"	"	"
Nickel	4.12	0.400	"	"	"	"	"	"
Silver	0.0525	0.0200	"	"	"	"	"	"
Zinc	17.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0108	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.3	0.0500	mg/L dry	1	BHG0163	07/08/24	07/11/24	EPA 6020B	
Magnesium	6.70	0.0500	"	"	"	"	"	"	
Sodium	68.4	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.80	0.00100	units	1	BHG0333	07/12/24	07/12/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 12:10**

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

FL01-03@3'
2407037-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	90.8	%	1	BHG0118	07/03/24	07/03/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.471	0.0100	mmhos/cm	1	BHG0189	07/08/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/02/24 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.36		pH Units	1	BHG0188	07/08/24	07/09/24	EPA 9045D	

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

BKG01@3'
2407037-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHG0114	07/03/24	07/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.16	0.181	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B	
Barium	74.8	0.362	"	"	"	"	"	"	
Cadmium	ND	0.181	"	"	"	"	"	"	
Copper	2.95	0.362	"	"	"	"	"	"	
Lead	5.05	0.181	"	"	"	"	"	"	
Nickel	4.21	0.362	"	"	"	"	"	"	
Silver	0.0233	0.0181	"	"	"	"	"	"	
Zinc	15.5	0.362	"	"	"	"	"	"	
Selenium	ND	0.236	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0108	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	64.3	0.0500	mg/L dry	1	BHG0163	07/08/24	07/11/24	EPA 6020B	
Magnesium	19.7	0.0500	"	"	"	"	"	"	
Sodium	142	0.0500	"	"	"	"	"	"	

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

BKG01@3'
2407037-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.97	0.00100	units	1	BHG0333	07/12/24	07/12/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.2		%	1	BHG0118	07/03/24	07/03/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.03	0.0100	mmhos/cm	1	BHG0189	07/08/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/02/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.36		pH Units	1	BHG0188	07/08/24	07/09/24	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0102 - EPA 5030 Soil MS

Blank (BHG0102-BLK1)

Prepared: 07/03/24 Analyzed: 07/04/24

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	0.0407		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	50-150			

LCS (BHG0102-BS1)

Prepared: 07/03/24 Analyzed: 07/04/24

Benzene	0.106	0.0020	mg/kg	0.100		106	70-130			
Toluene	0.103	0.0050	"	0.100		103	70-130			
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130			
m,p-Xylene	0.213	0.010	"	0.200		106	70-130			
o-Xylene	0.0993	0.0050	"	0.100		99.3	70-130			
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
Naphthalene	0.0850	0.0038	"	0.100		85.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0	50-150			

Matrix Spike (BHG0102-MS1)

Source: 2407035-01

Prepared: 07/03/24 Analyzed: 07/04/24

Benzene	0.0882	0.0020	mg/kg	0.100	ND	88.2	70-130			
Toluene	0.0862	0.0050	"	0.100	ND	86.2	70-130			
Ethylbenzene	0.0866	0.0050	"	0.100	ND	86.6	70-130			
m,p-Xylene	0.177	0.010	"	0.200	ND	88.3	70-130			
o-Xylene	0.0819	0.0050	"	0.100	ND	81.9	70-130			
1,2,4-Trimethylbenzene	0.0778	0.0050	"	0.100	ND	77.8	70-130			
1,3,5-Trimethylbenzene	0.0794	0.0050	"	0.100	ND	79.4	70-130			
Naphthalene	0.0563	0.0038	"	0.100	ND	56.3	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.6	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	50-150			

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

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

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

Batch BHG0102 - EPA 5030 Soil MS

Matrix Spike Dup (BHG0102-MSD1)		Source: 2407035-01			Prepared: 07/03/24 Analyzed: 07/04/24					
Benzene	0.0850	0.0020	mg/kg	0.100	ND	85.0	70-130	3.64	30	
Toluene	0.0831	0.0050	"	0.100	ND	83.1	70-130	3.76	30	
Ethylbenzene	0.0849	0.0050	"	0.100	ND	84.9	70-130	1.96	30	
m,p-Xylene	0.174	0.010	"	0.200	ND	87.1	70-130	1.32	30	
o-Xylene	0.0803	0.0050	"	0.100	ND	80.3	70-130	1.96	30	
1,2,4-Trimethylbenzene	0.0776	0.0050	"	0.100	ND	77.6	70-130	0.270	30	
1,3,5-Trimethylbenzene	0.0793	0.0050	"	0.100	ND	79.3	70-130	0.113	30	
Naphthalene	0.0612	0.0038	"	0.100	ND	61.2	70-130	8.27	30	QM-07
Surrogate: 1,2-Dichloroethane-d4		0.0411	"	0.0400		103	50-150			
Surrogate: Toluene-d8		0.0407	"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene		0.0382	"	0.0400		95.6	50-150			

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Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHG0103 - EPA 3550A

Blank (BHG0103-BLK1)

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	13.1		"	12.5		105	30-150			

LCS (BHG0103-BS1)

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	523	50	mg/kg	500		105	70-130			
Surrogate: o-Terphenyl	13.7		"	12.5		110	30-150			

Matrix Spike (BHG0103-MS1)

Source: 2407035-01

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	470	50	mg/kg	500	32.7	87.5	70-130			
Surrogate: o-Terphenyl	10.8		"	12.5		86.6	30-150			

Matrix Spike Dup (BHG0103-MSD1)

Source: 2407035-01

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	575	50	mg/kg	500	32.7	108	70-130	19.9	20	
Surrogate: o-Terphenyl	11.5		"	12.5		91.8	30-150			

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Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0098 - EPA 5030 Soil MS

Blank (BHG0098-BLK1)

Prepared & Analyzed: 07/03/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0147		"	0.0333		44.2	40-150			
Surrogate: Fluoranthene-d10	0.0195		"	0.0333		58.5	40-150			

LCS (BHG0098-BS1)

Prepared & Analyzed: 07/03/24

Acenaphthene	0.0219	0.00500	mg/kg	0.0333		65.8	31-137			
Anthracene	0.0229	0.00500	"	0.0333		68.6	30-120			
Benzo (a) anthracene	0.0236	0.00500	"	0.0333		70.7	30-120			
Benzo (a) pyrene	0.0234	0.00500	"	0.0333		70.3	30-120			
Benzo (b) fluoranthene	0.0243	0.00500	"	0.0333		72.9	30-120			
Benzo (k) fluoranthene	0.0238	0.00500	"	0.0333		71.5	30-120			
Chrysene	0.0227	0.00500	"	0.0333		68.1	30-120			
Dibenz (a,h) anthracene	0.0185	0.00500	"	0.0333		55.4	30-120			
Fluoranthene	0.0238	0.00500	"	0.0333		71.5	30-120			
Fluorene	0.0243	0.00500	"	0.0333		73.0	30-120			
Indeno (1,2,3-cd) pyrene	0.0190	0.00500	"	0.0333		56.9	30-120			
Pyrene	0.0230	0.00500	"	0.0333		68.8	35-142			
1-Methylnaphthalene	0.0241	0.00500	"	0.0333		72.4	35-142			
2-Methylnaphthalene	0.0243	0.00500	"	0.0333		72.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0256		"	0.0333		76.9	40-150			
Surrogate: Fluoranthene-d10	0.0245		"	0.0333		73.5	40-150			

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0098 - EPA 5030 Soil MS

Matrix Spike (BHG0098-MS1)

Source: 2407033-01

Prepared & Analyzed: 07/03/24

Acenaphthene	0.0167	0.00500	mg/kg	0.0333	ND	50.1	31-137		
Anthracene	0.0185	0.00500	"	0.0333	ND	55.5	30-120		
Benzo (a) anthracene	0.0187	0.00500	"	0.0333	ND	56.1	30-120		
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120		
Benzo (b) fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	30-120		
Benzo (k) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.3	30-120		
Chrysene	0.0176	0.00500	"	0.0333	ND	52.8	30-120		
Dibenz (a,h) anthracene	0.0171	0.00500	"	0.0333	ND	51.3	30-120		
Fluoranthene	0.0198	0.00500	"	0.0333	ND	59.5	30-120		
Fluorene	0.0198	0.00500	"	0.0333	ND	59.3	30-120		
Indeno (1,2,3-cd) pyrene	0.0176	0.00500	"	0.0333	ND	52.8	30-120		
Pyrene	0.0190	0.00500	"	0.0333	ND	57.1	35-142		
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130		
2-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.9	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0162		"	0.0333		48.7	40-150		
Surrogate: Fluoranthene-d10	0.0199		"	0.0333		59.8	40-150		

Matrix Spike Dup (BHG0098-MSD1)

Source: 2407033-01

Prepared & Analyzed: 07/03/24

Acenaphthene	0.0162	0.00500	mg/kg	0.0333	ND	48.6	31-137	3.12	30
Anthracene	0.0169	0.00500	"	0.0333	ND	50.7	30-120	9.17	30
Benzo (a) anthracene	0.0176	0.00500	"	0.0333	ND	52.9	30-120	5.91	30
Benzo (a) pyrene	0.0171	0.00500	"	0.0333	ND	51.2	30-120	3.61	30
Benzo (b) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.5	30-120	0.708	30
Benzo (k) fluoranthene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	3.22	30
Chrysene	0.0166	0.00500	"	0.0333	ND	49.9	30-120	5.70	30
Dibenz (a,h) anthracene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	9.16	30
Fluoranthene	0.0197	0.00500	"	0.0333	ND	59.1	30-120	0.656	30
Fluorene	0.0190	0.00500	"	0.0333	ND	57.1	30-120	3.73	30
Indeno (1,2,3-cd) pyrene	0.0169	0.00500	"	0.0333	ND	50.6	30-120	4.21	30
Pyrene	0.0182	0.00500	"	0.0333	ND	54.6	35-142	4.47	30
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130	4.55	50
2-Methylnaphthalene	0.0181	0.00500	"	0.0333	ND	54.3	15-130	2.64	50
Surrogate: 2-Methylnaphthalene-d10	0.0156		"	0.0333		46.7	40-150		
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.2	40-150		

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

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

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

Batch BHG0114 - EPA 3050B

Blank (BHG0114-BLK1)

Prepared: 07/03/24 Analyzed: 07/09/24

Boron ND 2.00 mg/L

LCS (BHG0114-BS1)

Prepared: 07/03/24 Analyzed: 07/09/24

Boron 5.15 2.00 mg/L 5.00 103 80-120

Duplicate (BHG0114-DUP1)

Source: 2407033-01

Prepared: 07/03/24 Analyzed: 07/09/24

Boron 0.349 2.00 mg/L 0.344 1.34 20

Matrix Spike (BHG0114-MS1)

Source: 2407033-01

Prepared: 07/03/24 Analyzed: 07/09/24

Boron 5.78 2.00 mg/L 4.96 0.344 110 75-125

Matrix Spike Dup (BHG0114-MSD1)

Source: 2407033-01

Prepared: 07/03/24 Analyzed: 07/09/24

Boron 5.90 2.00 mg/L 4.96 0.344 112 75-125 2.02 25

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Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0095 - EPA 3050B

Blank (BHG0095-BLK1)

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"
Selenium	ND	0.260	"

LCS (BHG0095-BS1)

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	39.1	0.200	mg/kg wet	40.0	97.7	80-120
Barium	40.3	0.400	"	40.0	101	80-120
Cadmium	2.02	0.200	"	2.00	101	80-120
Copper	40.4	0.400	"	40.0	101	80-120
Lead	20.3	0.200	"	20.0	101	80-120
Nickel	39.6	0.400	"	40.0	99.0	80-120
Silver	1.99	0.0200	"	2.00	99.4	80-120
Zinc	39.3	0.400	"	40.0	98.3	80-120
Selenium	3.81	0.260	"	4.00	95.2	80-120

Duplicate (BHG0095-DUP1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	1.14	0.200	mg/kg dry	1.02	10.8	20
Barium	79.3	0.400	"	82.5	3.90	20
Cadmium	0.0384	0.200	"	0.0320	18.3	20
Copper	1.10	0.400	"	1.03	6.78	20
Lead	6.13	0.200	"	6.10	0.509	20
Nickel	1.21	0.400	"	1.15	5.11	20
Silver	0.0507	0.0200	"	0.0277	58.8	20
Zinc	9.37	0.400	"	9.01	3.92	20
Selenium	ND	0.260	"	ND		20

QR-01

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0095 - EPA 3050B

Matrix Spike (BHG0095-MS1)		Source: 2407018-01			Prepared: 07/03/24 Analyzed: 07/04/24					
Arsenic	37.8	0.200	mg/kg dry	49.2	1.02	74.7	75-125			QM-07
Barium	120	0.400	"	49.2	82.5	76.0	75-125			
Cadmium	2.67	0.200	"	2.46	0.0320	107	75-125			
Copper	38.3	0.400	"	49.2	1.03	75.7	75-125			
Lead	30.9	0.200	"	24.6	6.10	101	75-125			
Nickel	38.4	0.400	"	49.2	1.15	75.7	75-125			
Silver	2.55	0.0200	"	2.46	0.0277	102	75-125			
Zinc	46.4	0.400	"	49.2	9.01	75.8	75-125			
Selenium	4.56	0.260	"	4.92	ND	92.7	75-125			

Matrix Spike Dup (BHG0095-MSD1)		Source: 2407018-01			Prepared: 07/03/24 Analyzed: 07/04/24					
Arsenic	44.8	0.200	mg/kg dry	49.2	1.02	88.9	75-125	17.0	25	
Barium	154	0.400	"	49.2	82.5	146	75-125	25.1	25	QM-07
Cadmium	3.43	0.200	"	2.46	0.0320	138	75-125	25.1	25	QM-07
Copper	46.0	0.400	"	49.2	1.03	91.3	75-125	18.3	25	
Lead	39.9	0.200	"	24.6	6.10	137	75-125	25.3	25	QM-07
Nickel	45.8	0.400	"	49.2	1.15	90.6	75-125	17.4	25	
Silver	3.20	0.0200	"	2.46	0.0277	129	75-125	22.7	25	QM-07
Zinc	55.7	0.400	"	49.2	9.01	94.8	75-125	18.3	25	
Selenium	5.73	0.260	"	4.92	ND	116	75-125	22.6	25	

Post Spike (BHG0095-PS1)		Source: 2407018-01			Prepared: 07/03/24 Analyzed: 07/04/24					
Arsenic	67.1		ug/l	100	2.07	65.0	75-125			QM-01
Barium	254		"	100	167	87.0	75-125			
Cadmium	4.53		"	5.00	0.0649	89.4	75-125			
Copper	66.6		"	100	2.10	64.5	75-125			QM-01
Lead	56.5		"	50.0	12.4	88.1	75-125			
Nickel	66.0		"	100	2.34	63.6	75-125			QM-01
Silver	4.54		"	5.00	0.0562	89.8	75-125			
Zinc	83.4		"	100	18.3	65.1	75-125			QM-01
Selenium	8.67		"	10.0	0.0436	86.2	75-125			

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHG0108 - 3060A Mod

Blank (BHG0108-BLK1)

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHG0108-BS1)

Prepared & Analyzed: 07/03/24

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

Duplicate (BHG0108-DUP1)

Source: 2407034-01

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHG0108-MS1)

Source: 2407034-01

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent 26.7 0.30 mg/kg dry 27.2 ND 98.2 75-125

Matrix Spike Dup (BHG0108-MSD1)

Source: 2407034-01

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent 26.8 0.30 mg/kg dry 27.2 ND 98.4 75-125 0.203 20

Summit Scientific

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

Project: Noble - Johnson C29-28 FL

Project Number: UWRWE-A3072-ABN

Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

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

Summit Scientific

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

Batch BHG0163 - General Preparation

Blank (BHG0163-BLK1)

Prepared: 07/08/24 Analyzed: 07/11/24

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

LCS (BHG0163-BS1)

Prepared: 07/08/24 Analyzed: 07/11/24

Calcium	5.44	0.0500	mg/L wet	5.00	109	70-130
Magnesium	4.94	0.0500	"	5.00	98.8	70-130
Sodium	4.95	0.0500	"	5.00	98.9	70-130

Summit Scientific

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

Project: Noble - Johnson C29-28 FL

Project Number: UWRWE-A3072-ABN

Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

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

Summit Scientific

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

Batch BHG0118 - General Preparation

Duplicate (BHG0118-DUP1)			Source: 2407020-01			Prepared & Analyzed: 07/03/24					
% Solids	96.6		%			97.4			0.757		20

Summit Scientific

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

Project: Noble - Johnson C29-28 FL
Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

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

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

Batch BHG0189 - General Preparation

Blank (BHG0189-BLK1)

Prepared: 07/08/24 Analyzed: 07/09/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0189-BS1)

Prepared: 07/08/24 Analyzed: 07/09/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHG0189-DUP1)

Source: 2407016-01

Prepared: 07/08/24 Analyzed: 07/09/24

Specific Conductance (EC) 3.61 0.0100 mmhos/cm 3.69 2.11 20

Summit Scientific

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

Project: Noble - Johnson C29-28 FL

Project Number: UWRWE-A3072-ABN

Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

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

Summit Scientific

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

Batch BHG0188 - General Preparation

LCS (BHG0188-BS1)

Prepared: 07/08/24 Analyzed: 07/09/24

pH	9.19	pH Units	9.18	100	95-105
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Duplicate (BHG0188-DUP1)

Source: 2407016-01

Prepared: 07/08/24 Analyzed: 07/09/24

pH	8.17	pH Units	8.18	0.122	20
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Summit Scientific

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

Project: Noble - Johnson C29-28 FL

Project Number: UWRWE-A3072-ABN
Project Manager: Jacob Whritenour

Reported:
07/12/24 10:36

Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference