Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 15, 2025

Eric Vonde
Tasman Geosciences
4725 Independence St.
Wheat Ridge, CO 80033

RE: Noble - Wells Ranch AA21-04
Work Order #2502430

Enclosed are the results of analyses for samples received by Summit Scientific on 02/24/25 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Natalie Tessier For Paul Shrewsbury
President

S2

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01R-W@4'	2502430-01	Soil	02/24/25 10:28	02/24/25 18:00

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.

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

Lab ID	Page 1 of 1
2502430	

	Send Data To:	Send Invoice To:
Client: Tasman , Inc.	Project Manager: Eric Vonde	Company: Mobile
Address: 6855 W. 119th Ave.	E-Mail: tas-chevron-5@tasman-geo.com	Project Name/Location: Wells Ranch AA 21-04
City/State/Zip: Broomfield / CO/ 80020	RBUEUF27@chevron.com, ~~Danpeterson@chevron.com~~ W.W.	AFE#: WRWE-A2817 - ABN
Phone: 918-214-6890	Project Name: Wells Ranch AA 21-04	PO/Billing Codes:
Sampler Name: Wyatt Wadleigh	Project Number:	Contact: Mike montoya

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ____	Water	Soil	Air-Canister #	Other ____	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD		SAR, EC, pH by saturated paste
1	FLOIR-W@4'	02/24/25	1024	2			X			X			X	X	X	X	X	X			
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by:	Date/Time:	Received by: Tasman Lockbox	Date/T	TAT Business Days		Field DO		Notes:
Wyatt W. W.W.	1430 02/24/25		02/24/25 1430	Same Day		Field EC		Send analytical data to: Jason.Davidson@Chevron.com
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day		Field ORP		
Tasman Lockbox	2/24/25 1800		2/24/25 1800	2 Days		Field pH		
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days		Field Temp.		
				Standard	X	Field Turb.		

Temperature Upon Receipt:	Corrected Temperature	IR gun #:	HNO3 lot #:
4.9	4.9	1	

S2

S2 Work Order# 2502430

Sample Receipt Checklist

Client: Tashman Client Project ID: Wells Ranch AA21-04

Received Via: H.D./P.U./FedEx/UPS/USPS/Other [ ] Airbill #: _____

Matrix (Circle all that apply) Air/Soil/Water/Other [ ] Temp (°C) [4.9] Thermometer # [1]

Bottle ware (Circle all that apply) Glass Jar/Voa/Amber/Poly/Other [ ]

	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.	–			OMCE
If custody seals are present, are they intact? (1)	–			
Are samples due within 48 hours?		–		
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, Total Residual Chlorine (TRC)		–		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	–			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	–			
Were all samples received intact? (1)	–			
Was adequate sample volume provided? (1)	–			
Were samples provided in appropriate bottle ware?	–			
Does the COC agree with the number and type of sample bottles received? (1)	–			
Do the sample IDs on the bottle labels match the COC? (1)	–			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			–	
Are any samples/bottles preserved **(excluding cooling)**? (1) Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			–	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pH in Comments.			–	
If dissolved metals are requested, were samples field filtered?			–	
Are there requested analysis that cannot be performed by S2? Note analysis in the comments column		–		
Additional Comments (if any):				

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

Control Form #: SRC-001

SN
Custodian Printed Name

2/24/25
Date/Time

S2

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

FL01R-W@4'

2502430-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIC0426	03/07/25	04/04/25	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: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0405	*101 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0407	*102 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	*101 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIC0429	03/07/25	04/12/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.91	*71.3 %*	*50-140*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

FL01R-W@4'

2502430-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIC0366	03/06/25	03/16/25	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	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0196	*58.9 %*	*40-140*		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0218	*65.3 %*	*40-140*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1477	02/26/25	02/27/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

FL01R-W@4'

2502430-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	**0.721**	0.200	mg/kg dry	1	BIC1383	03/24/25	04/08/25	EPA 6020B	
Barium	**78.0**	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	**1.24**	0.400	"	"	"	"	"	"	
Lead	**5.04**	0.200	"	"	"	"	"	"	
Nickel	**1.21**	0.400	"	"	"	"	"	"	
Silver	**0.0223**	0.0200	"	"	"	"	"	"	
Zinc	**4.95**	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIC0204	03/04/25	03/06/25	EPA 7196A	

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

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**69.5**	0.0500	mg/L dry	1	BIC1170	03/19/25	03/26/25	EPA 6020B	
Magnesium	**24.8**	0.0500	"	"	"	"	"	"	
Sodium	**113**	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**2.96**	0.00100	units	1	BIC1607	03/26/25	03/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

FL01R-W@4'

2502430-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**90.7**		%	1	BIB1478	02/26/25	02/26/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**1.02**	0.0100	mmhos/cm	1	BIC1172	03/19/25	03/23/25	EPA 120.1	

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

Date Sampled: **02/24/25 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**8.27**		pH Units	1	BIC1171	03/19/25	03/23/25	EPA 9045D	

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC0426 - EPA 5030 Soil MS										
Blank (BIC0426-BLK1)				Prepared: 03/07/25 Analyzed: 04/03/25						
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	"							
Surrogate: 1,2-Dichloroethane-d4	*0.0397*		*"*	*0.0400*		*99.3*	*50-150*			
Surrogate: Toluene-d8	*0.0404*		*"*	*0.0400*		*101*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0416*		*"*	*0.0400*		*104*	*50-150*			
LCS (BIC0426-BS1)				Prepared: 03/07/25 Analyzed: 04/04/25						
Benzene	0.0985	0.0020	mg/kg	0.100		98.5	70-130			
Toluene	0.0978	0.0050	"	0.100		97.8	70-130			
Ethylbenzene	0.0921	0.0050	"	0.100		92.1	70-130			
m,p-Xylene	0.183	0.010	"	0.200		91.4	70-130			
o-Xylene	0.0909	0.0050	"	0.100		90.9	70-130			
1,2,4-Trimethylbenzene	0.0869	0.0050	"	0.100		86.9	70-130			
1,3,5-Trimethylbenzene	0.0860	0.0050	"	0.100		86.0	70-130			
Naphthalene	0.0889	0.0038	"	0.100		88.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0408*		*"*	*0.0400*		*102*	*50-150*			
Surrogate: Toluene-d8	*0.0414*		*"*	*0.0400*		*103*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0403*		*"*	*0.0400*		*101*	*50-150*			
Matrix Spike (BIC0426-MS1)		**Source: 2502414-02**		Prepared: 03/07/25 Analyzed: 04/04/25						
Benzene	0.0964	0.0020	mg/kg	0.100	ND	96.4	70-130			
Toluene	0.0951	0.0050	"	0.100	ND	95.1	70-130			
Ethylbenzene	0.0856	0.0050	"	0.100	ND	85.6	70-130			
m,p-Xylene	0.168	0.010	"	0.200	ND	84.2	70-130			
o-Xylene	0.0824	0.0050	"	0.100	ND	82.4	70-130			
1,2,4-Trimethylbenzene	0.0754	0.0050	"	0.100	ND	75.4	70-130			
1,3,5-Trimethylbenzene	0.0757	0.0050	"	0.100	ND	75.7	70-130			
Naphthalene	0.0731	0.0038	"	0.100	ND	73.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0418*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: Toluene-d8	*0.0411*		*"*	*0.0400*		*103*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0403*		*"*	*0.0400*		*101*	*50-150*			

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Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC0426 - EPA 5030 Soil MS										
Matrix Spike Dup (BIC0426-MSD1)	**Source: 2502414-02**			Prepared: 03/07/25 Analyzed: 04/04/25						
Benzene	0.106	0.0020	mg/kg	0.100	ND	106	70-130	9.85	30	
Toluene	0.102	0.0050	"	0.100	ND	102	70-130	7.38	30	
Ethylbenzene	0.0916	0.0050	"	0.100	ND	91.6	70-130	6.81	30	
m,p-Xylene	0.180	0.010	"	0.200	ND	90.2	70-130	6.97	30	
o-Xylene	0.0892	0.0050	"	0.100	ND	89.2	70-130	7.83	30	
1,2,4-Trimethylbenzene	0.0794	0.0050	"	0.100	ND	79.4	70-130	5.20	30	
1,3,5-Trimethylbenzene	0.0802	0.0050	"	0.100	ND	80.2	70-130	5.70	30	
Naphthalene	0.0739	0.0038	"	0.100	ND	73.9	70-130	1.06	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0407*		"	*0.0400*		*102*	*50-150*			
Surrogate: Toluene-d8	*0.0413*		"	*0.0400*		*103*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0410*		"	*0.0400*		*103*	*50-150*			

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Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC0429 - EPA 3550A										
Blank (BIC0429-BLK1)				Prepared: 03/07/25 Analyzed: 04/12/25						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*13.5*		*"*	*12.5*		*108*	*50-140*			
LCS (BIC0429-BS1)				Prepared: 03/07/25 Analyzed: 04/12/25						
C10-C28 (DRO)	455	50	mg/kg	500		91.0	50-140			
Surrogate: o-Terphenyl	*10.8*		*"*	*12.5*		*86.1*	*50-140*			
Matrix Spike (BIC0429-MS1)	**Source: 2502414-02**			Prepared: 03/07/25 Analyzed: 04/12/25						
C10-C28 (DRO)	466	50	mg/kg	500	18.4	89.5	50-140			
Surrogate: o-Terphenyl	*10.5*		*"*	*12.5*		*84.3*	*50-140*			
Matrix Spike Dup (BIC0429-MSD1)	**Source: 2502414-02**			Prepared: 03/07/25 Analyzed: 04/12/25						
C10-C28 (DRO)	443	50	mg/kg	500	18.4	85.0	50-140	4.97	20	
Surrogate: o-Terphenyl	*10.2*		*"*	*12.5*		*81.4*	*50-140*			

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PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC0366 - EPA 5030 Soil MS										
Blank (BIC0366-BLK1)				Prepared: 03/06/25 Analyzed: 03/15/25						
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	*0.0241*		*"*	*0.0333*		*72.3*	*40-140*			
Surrogate: Fluoranthene-d10	*0.0244*		*"*	*0.0333*		*73.1*	*40-140*			
LCS (BIC0366-BS1)				Prepared: 03/06/25 Analyzed: 03/15/25						
Acenaphthene	0.0257	0.00500	mg/kg	0.0333		77.2	40-140			
Anthracene	0.0257	0.00500	"	0.0333		77.1	40-140			
Benzo (a) anthracene	0.0274	0.00500	"	0.0333		82.1	40-140			
Benzo (a) pyrene	0.0260	0.00500	"	0.0333		78.0	40-140			
Benzo (b) fluoranthene	0.0152	0.00500	"	0.0333		45.7	40-140			
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333		43.8	40-140			
Chrysene	0.0267	0.00500	"	0.0333		80.0	40-140			
Dibenz (a,h) anthracene	0.0311	0.00500	"	0.0333		93.3	40-140			
Fluoranthene	0.0225	0.00500	"	0.0333		67.6	40-140			
Fluorene	0.0248	0.00500	"	0.0333		74.5	40-140			
Indeno (1,2,3-cd) pyrene	0.0337	0.00500	"	0.0333		101	40-140			
Pyrene	0.0302	0.00500	"	0.0333		90.6	40-140			
1-Methylnaphthalene	0.0236	0.00500	"	0.0333		70.7	40-140			
2-Methylnaphthalene	0.0270	0.00500	"	0.0333		80.9	40-140			
Surrogate: 2-Methylnaphthalene-d10	*0.0225*		*"*	*0.0333*		*67.5*	*40-140*			
Surrogate: Fluoranthene-d10	*0.0230*		*"*	*0.0333*		*68.9*	*40-140*			

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC0366 - EPA 5030 Soil MS										
Matrix Spike (BIC0366-MS1)	**Source: 2502418-01**			Prepared: 03/06/25 Analyzed: 03/20/25						
Acenaphthene	0.0162	0.00500	mg/kg	0.0333	ND	48.6	40-140			
Anthracene	0.0145	0.00500	"	0.0333	ND	43.5	40-140			
Benzo (a) anthracene	0.0159	0.00500	"	0.0333	ND	47.7	40-140			
Benzo (a) pyrene	0.0153	0.00500	"	0.0333	ND	45.9	40-140			
Benzo (b) fluoranthene	0.0171	0.00500	"	0.0333	ND	51.4	40-140			
Benzo (k) fluoranthene	0.0162	0.00500	"	0.0333	ND	48.6	40-140			
Chrysene	0.0143	0.00500	"	0.0333	ND	42.8	40-140			
Dibenz (a,h) anthracene	0.0140	0.00500	"	0.0333	ND	42.1	40-140			
Fluoranthene	0.0153	0.00500	"	0.0333	ND	46.0	40-140			
Fluorene	0.0151	0.00500	"	0.0333	ND	45.2	40-140			
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.9	40-140			
Pyrene	0.0226	0.00500	"	0.0333	ND	67.9	40-140			
1-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.9	40-140			
2-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.2	40-140			
Surrogate: 2-Methylnaphthalene-d10	*0.0179*		*"*	*0.0333*		*53.8*	*40-140*			
Surrogate: Fluoranthene-d10	*0.0149*		*"*	*0.0333*		*44.6*	*40-140*			
Matrix Spike Dup (BIC0366-MSD1)	**Source: 2502418-01**			Prepared: 03/06/25 Analyzed: 03/20/25						
Acenaphthene	0.0131	0.00500	mg/kg	0.0333	ND	39.3	40-140	21.2	30	QM-05
Anthracene	0.0125	0.00500	"	0.0333	ND	37.6	40-140	14.6	30	QM-05
Benzo (a) anthracene	0.0133	0.00500	"	0.0333	ND	39.8	40-140	17.9	30	QM-05
Benzo (a) pyrene	0.0135	0.00500	"	0.0333	ND	40.4	40-140	12.7	30	
Benzo (b) fluoranthene	0.0148	0.00500	"	0.0333	ND	44.4	40-140	14.4	30	
Benzo (k) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.0	40-140	17.1	30	
Chrysene	0.0124	0.00500	"	0.0333	ND	37.3	40-140	13.8	30	QM-05
Dibenz (a,h) anthracene	0.0127	0.00500	"	0.0333	ND	38.1	40-140	10.0	30	QM-05
Fluoranthene	0.0130	0.00500	"	0.0333	ND	38.9	40-140	16.6	30	QM-05
Fluorene	0.0121	0.00500	"	0.0333	ND	36.4	40-140	21.6	30	QM-05
Indeno (1,2,3-cd) pyrene	0.0152	0.00500	"	0.0333	ND	45.6	40-140	8.93	30	
Pyrene	0.0184	0.00500	"	0.0333	ND	55.2	40-140	20.5	30	
1-Methylnaphthalene	0.0144	0.00500	"	0.0333	ND	43.1	40-140	20.3	30	
2-Methylnaphthalene	0.0144	0.00500	"	0.0333	ND	43.3	40-140	18.6	30	
Surrogate: 2-Methylnaphthalene-d10	*0.0146*		*"*	*0.0333*		*43.8*	*40-140*			
Surrogate: Fluoranthene-d10	*0.0125*		*"*	*0.0333*		*37.5*	*40-140*			*QM-03*

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 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIB1477 - EPA 3050B										
Blank (BIB1477-BLK1)				Prepared: 02/26/25 Analyzed: 02/27/25						
Boron	ND	2.00	mg/L							
LCS (BIB1477-BS1)				Prepared: 02/26/25 Analyzed: 02/27/25						
Boron	5.85	2.00	mg/L	5.00		117	80-120			
Duplicate (BIB1477-DUP1)	**Source: 2502430-01**			Prepared: 02/26/25 Analyzed: 02/27/25						
Boron	0.293	2.00	mg/L		0.282			3.89	20	
Matrix Spike (BIB1477-MS1)	**Source: 2502430-01**			Prepared: 02/26/25 Analyzed: 02/27/25						
Boron	5.12	2.00	mg/L	4.99	0.282	96.9	75-125			
Matrix Spike Dup (BIB1477-MSD1)	**Source: 2502430-01**			Prepared: 02/26/25 Analyzed: 02/27/25						
Boron	5.52	2.00	mg/L	4.99	0.282	105	75-125	7.51	25	

Summit Scientific

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

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC1383 - EPA 3050B										
Blank (BIC1383-BLK1)				Prepared: 03/24/25 Analyzed: 04/08/25						
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 (BIC1383-BS1)				Prepared: 03/24/25 Analyzed: 04/08/25						
Arsenic	38.7	0.200	mg/kg wet	41.3		93.6	80-120			
Barium	39.1	0.400	"	41.3		94.6	80-120			
Cadmium	1.99	0.200	"	2.07		96.3	80-120			
Copper	39.1	0.400	"	41.3		94.5	80-120			
Lead	20.1	0.200	"	20.7		97.2	80-120			
Nickel	39.0	0.400	"	41.3		94.3	80-120			
Silver	2.00	0.0200	"	2.07		97.0	80-120			
Zinc	38.5	0.400	"	41.3		93.2	80-120			
Selenium	4.32	0.260	"	4.13		104	80-120			
Duplicate (BIC1383-DUP1)		**Source: 2502379-17**		Prepared: 03/24/25 Analyzed: 04/08/25						
Arsenic	1.27	0.200	mg/kg dry		1.47			15.2	20	
Barium	167	0.400	"		127			27.5	20	QM-04
Cadmium	0.239	0.200	"		0.226			5.89	20	
Copper	3.45	0.400	"		4.43			24.7	20	QM-04
Lead	13.4	0.200	"		13.4			0.574	20	
Nickel	3.14	0.400	"		4.53			36.4	20	QM-04
Silver	0.0700	0.0200	"		0.0716			2.28	20	
Zinc	12.1	0.400	"		15.1			22.4	20	QM-04
Selenium	0.417	0.260	"		0.607			37.1	20	QM-04

S2

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Total Metals by EPA 6020B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC1383 - EPA 3050B										
Matrix Spike (BIC1383-MS1)	**Source: 2502379-17**			Prepared: 03/24/25 Analyzed: 04/08/25						
Arsenic	9.03	0.200	mg/kg dry	47.9	1.47	15.8	75-125			QM-05
Barium	410	0.400	"	47.9	127	593	75-125			QM-05
Cadmium	2.56	0.200	"	2.39	0.226	97.4	75-125			
Copper	11.6	0.400	"	47.9	4.43	14.9	75-125			QM-05
Lead	33.4	0.200	"	23.9	13.4	83.7	75-125			
Nickel	10.8	0.400	"	47.9	4.53	13.1	75-125			QM-05
Silver	2.31	0.0200	"	2.39	0.0716	93.4	75-125			
Zinc	19.9	0.400	"	47.9	15.1	9.91	75-125			QM-05
Selenium	4.64	0.260	"	4.79	0.607	84.2	75-125			
Matrix Spike Dup (BIC1383-MSD1)	**Source: 2502379-17**			Prepared: 03/24/25 Analyzed: 04/08/25						
Arsenic	9.38	0.200	mg/kg dry	49.0	1.47	16.1	75-125	3.81	25	QM-05
Barium	270	0.400	"	49.0	127	294	75-125	41.1	25	QM-05
Cadmium	2.65	0.200	"	2.45	0.226	99.0	75-125	3.58	25	
Copper	11.7	0.400	"	49.0	4.43	14.9	75-125	1.28	25	QM-05
Lead	34.2	0.200	"	24.5	13.4	85.1	75-125	2.39	25	
Nickel	11.2	0.400	"	49.0	4.53	13.5	75-125	3.10	25	QM-05
Silver	2.43	0.0200	"	2.45	0.0716	96.1	75-125	5.00	25	
Zinc	20.7	0.400	"	49.0	15.1	11.3	75-125	3.83	25	QM-05
Selenium	4.95	0.260	"	4.90	0.607	88.7	75-125	6.59	25	

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC0204 - 3060A_Mod										
Blank (BIC0204-BLK1)				Prepared: 03/04/25 Analyzed: 03/06/25						
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BIC0204-BS1)				Prepared: 03/04/25 Analyzed: 03/06/25						
Chromium, Hexavalent	27.0	0.30	mg/kg wet	25.0		108	80-120			
Duplicate (BIC0204-DUP1)	**Source: 2502430-01**			Prepared: 03/04/25 Analyzed: 03/06/25						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BIC0204-MS1)	**Source: 2502430-01**			Prepared: 03/04/25 Analyzed: 03/06/25						
Chromium, Hexavalent	29.0	0.30	mg/kg dry	27.6	ND	105	75-125			
Matrix Spike Dup (BIC0204-MSD1)	**Source: 2502430-01**			Prepared: 03/04/25 Analyzed: 03/06/25						
Chromium, Hexavalent	26.6	0.30	mg/kg dry	28.4	ND	93.6	75-125	8.63	20	

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC1170 - General Preparation										
Blank (BIC1170-BLK1)				Prepared: 03/19/25 Analyzed: 03/26/25						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BIC1170-BS1)				Prepared: 03/19/25 Analyzed: 03/26/25						
Calcium	5.42	0.0500	mg/L wet	5.00		108	70-130			
Magnesium	5.53	0.0500	"	5.00		111	70-130			
Sodium	5.59	0.0500	"	5.00		112	70-130			

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIB1478 - General Preparation										
Duplicate (BIB1478-DUP1)		**Source: 2502430-01**		Prepared & Analyzed: 02/26/25						
% Solids	91.6		%		90.7			0.979	20	

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC1172 - General Preparation										
Blank (BIC1172-BLK1)				Prepared: 03/19/25 Analyzed: 03/23/25						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BIC1172-BS1)				Prepared: 03/19/25 Analyzed: 03/23/25						
Specific Conductance (EC)	0.157	0.0100	mmhos/cm	0.150		104	95-105			
Duplicate (BIC1172-DUP1)	**Source: 2502428-01**			Prepared: 03/19/25 Analyzed: 03/23/25						
Specific Conductance (EC)	0.523	0.0100	mmhos/cm		0.544			3.88	20	

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BIC1171 - General Preparation										
LCS (BIC1171-BS1)				Prepared: 03/19/25 Analyzed: 03/23/25						
pH	9.03		pH Units	9.18		98.4	95-105			
Duplicate (BIC1171-DUP1)		**Source: 2502428-01**		Prepared: 03/19/25 Analyzed: 03/23/25						
pH	8.41		pH Units		8.63			2.58	20	

Tasman Geosciences 4725 Independence St. Wheat Ridge CO, 80033	Project: Noble - Wells Ranch AA21-04 Project Number: UWRWE-A2817-ABN Project Manager: Eric Vonde	**Reported:** 04/15/25 08:10

Notes and Definitions

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.
QM-04	Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
QM-03	Multiple analyses indicate the percent recovery exceeds the quality control acceptance criteria due to a matrix effect. 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