

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 17, 2025

AJ Engelhardt

Tasman Geosciences

4725 Independence St.

Wheat Ridge, CO 80033

RE: PDC - Cecil 66N64W 12NWNW

Work Order #2505143

Enclosed are the results of analyses for samples received by Summit Scientific on 05/30/25 17:52. 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
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@0-6"	2505143-01	Soil	05/30/25 09:29	05/30/25 17:52
SEP01-DL@4'	2505143-02	Soil	05/30/25 12:08	05/30/25 17:52
BKG01@1-2'	2505143-03	Soil	05/30/25 13:10	05/30/25 17:52
BKG01@2-3'	2505143-04	Soil	05/30/25 13:11	05/30/25 17:52
BKG01@4-5'	2505143-05	Soil	05/30/25 13:14	05/30/25 17:52
BKG02@1-2'	2505143-06	Soil	05/30/25 13:15	05/30/25 17:52
BKG02@2-3'	2505143-07	Soil	05/30/25 13:17	05/30/25 17:52
BKG02@4-5'	2505143-08	Soil	05/30/25 13:19	05/30/25 17:52

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.



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

Lab ID	Page) of)
2505143	

Client: Chevron/Tasman	Project Manager: AJ Engelhardt	Company: PDL
Address: 4725 W. Independence Street	E-Mail: tas-chevron-3@tasman-geo.com	Project Name/Location: Cecil-66 N64W 12 NW NW
City/State/Zip: Wheat Ridge, CO 80033	E-Mail: rbueuf27@chevron.com	AFE#: UWRWE-A5068-AES
Phone:	Project Name: Cecil-66 N64W 12 NW NW	PO/Billing Codes:
Sampler Name: Connor Lovell	Project Number: 10517	Contact: Karen Olson

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested					Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	915-VOC	915-PAH	915-TPH	pH, EC, SAR	Boron		915-Metals	
1	AST01E0-6"	5/30/25	929	4			4			4				X	X	X	X	X		
2	SEPO1-DLE4'		1208	4			4			4				X	X	X				
3	BK601E1-2'		1310	1			1			1										
4	BK601E2-3'		1311																	
5	BK601E4-5'		1314																	
6	BK602E1-2'		1315																	
7	BK602E2-3'		1317																	
8	BK602E4-5'		1319																	
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by:	Date/Time: 5/30/25 1530	Received by: Tasman Lockbox	Date/Time: 5/30/25 1530	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 5/30/25 1752	Received by:	Date/Time: 5/30/25 1752	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: 2.4	Corrected Temperature: C	IR gun #:			HNO3 lot #:	

S₂

S2 Work Order# 2505143

Sample Receipt Checklist

Client: Chesterman Client Project ID: Ceci - (60N 64W) 12NWNWReceived Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____Matrix (Circle all that apply) Air/Soil/Water/Other Temp (°C) 24 Thermometer # 1Bottle 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.	-			on 205
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 ₂ SO 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

AS
Custodian Printed Name

5/30/25
Date/Time



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

AST01@0-6"
2505143-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIF0036	06/04/25	06/04/25	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: **05/30/25 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0467	117 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIF0041	06/04/25	06/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.44	59.5 %		50-140		"	"	"	"	

PAH by EPA Method 8270E 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
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

AST01@0-6"
2505143-01 (Soil)

Summit Scientific

PAH by EPA Method 8270E SIM

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIF0003	06/02/25	06/05/25	EPA 8270E 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: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0141	42.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0129	38.7 %	40-140		"	"	"	"	S-09

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 09:29**

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

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

AST01@0-6"
2505143-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.52	0.200	mg/kg dry	1	BIE0800	05/30/25	06/03/25	EPA 6020B	
Barium	50.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	6.36	0.400	"	"	"	"	"	"	
Lead	6.05	0.200	"	"	"	"	"	"	
Nickel	5.02	0.400	"	"	"	"	"	"	
Silver	0.0246	0.0200	"	"	"	"	"	"	
Zinc	12.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	108	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	32.0	0.0500	"	"	"	"	"	"	
Sodium	14.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.311	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

AST01@0-6"
2505143-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.3		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.789	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.02		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

SEP01-DL@4'
2505143-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIF0036	06/04/25	06/04/25	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: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0506	126 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0429	107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIF0041	06/04/25	06/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.34	58.7 %	50-140		"	"	"	"	

PAH by EPA Method 8270E 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
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

SEP01-DL@4'
2505143-02 (Soil)

Summit Scientific

PAH by EPA Method 8270E SIM

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIF0003	06/02/25	06/05/25	EPA 8270E 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: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0259	77.8 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0231	69.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 12:08**

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

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

SEP01-DL@4'
2505143-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.12	0.200	mg/kg dry	1	BIE0800	05/30/25	06/03/25	EPA 6020B	
Barium	43.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.01	0.400	"	"	"	"	"	"	
Lead	4.71	0.200	"	"	"	"	"	"	
Nickel	3.19	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.67	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	8140	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	272	0.0500	"	"	"	"	"	"	
Sodium	743	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.21	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

SEP01-DL@4'
2505143-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.9		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.873	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.13		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG01@1-2'
2505143-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.65	0.200	mg/kg dry	1	BIE0800	"	06/03/25	EPA 6020B	
Barium	70.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.51	0.400	"	"	"	"	"	"	
Lead	6.61	0.200	"	"	"	"	"	"	
Nickel	5.12	0.400	"	"	"	"	"	"	
Silver	0.0287	0.0200	"	"	"	"	"	"	
Zinc	10.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	128	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	37.6	0.0500	"	"	"	"	"	"	
Sodium	50.5	0.0500	"	"	"	"	"	"	

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG01@1-2'
2505143-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.01	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.3		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.15	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.97		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG01@2-3'
2505143-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.22	0.200	mg/kg dry	1	BIE0800	"	06/03/25	EPA 6020B	
Barium	63.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.55	0.400	"	"	"	"	"	"	
Lead	4.82	0.200	"	"	"	"	"	"	
Nickel	3.84	0.400	"	"	"	"	"	"	
Silver	0.0292	0.0200	"	"	"	"	"	"	
Zinc	8.60	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	200	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	141	0.0500	"	"	"	"	"	"	
Sodium	96.7	0.0500	"	"	"	"	"	"	

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG01@2-3'
2505143-04 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.28	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	75.7		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.88	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG01@4-5'
2505143-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.64	0.200	mg/kg dry	1	BIE0800	"	06/03/25	EPA 6020B	
Barium	66.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.70	0.400	"	"	"	"	"	"	
Lead	4.32	0.200	"	"	"	"	"	"	
Nickel	2.71	0.400	"	"	"	"	"	"	
Silver	0.0284	0.0200	"	"	"	"	"	"	
Zinc	8.82	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	394	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	192	0.0500	"	"	"	"	"	"	
Sodium	1170	0.0500	"	"	"	"	"	"	

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG01@4-5'
2505143-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	12.1	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	73.4		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.94	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 13:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.08		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG02@1-2'
2505143-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.37	0.200	mg/kg dry	1	BIE0800	"	06/03/25	EPA 6020B	
Barium	58.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.55	0.400	"	"	"	"	"	"	
Lead	5.51	0.200	"	"	"	"	"	"	
Nickel	4.48	0.400	"	"	"	"	"	"	
Silver	0.0282	0.0200	"	"	"	"	"	"	
Zinc	9.99	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	1150	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	121	0.0500	"	"	"	"	"	"	
Sodium	30.5	0.0500	"	"	"	"	"	"	

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG02@1-2'
2505143-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.229	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.9		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.554	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 13:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG02@2-3'
2505143-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.70	0.200	mg/kg dry	1	BIE0800	"	06/03/25	EPA 6020B	
Barium	62.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.66	0.400	"	"	"	"	"	"	
Lead	5.46	0.200	"	"	"	"	"	"	
Nickel	4.90	0.400	"	"	"	"	"	"	
Silver	0.0313	0.0200	"	"	"	"	"	"	
Zinc	9.39	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	109	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	58.6	0.0500	"	"	"	"	"	"	
Sodium	118	0.0500	"	"	"	"	"	"	

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG02@2-3'
2505143-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.27	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.1		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.57	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 13:17**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG02@4-5'
2505143-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L dry	1	BIE0802	05/30/25	06/02/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.27	0.200	mg/kg dry	1	BIE0800	"	06/03/25	EPA 6020B	
Barium	69.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.74	0.400	"	"	"	"	"	"	
Lead	4.32	0.200	"	"	"	"	"	"	
Nickel	4.31	0.400	"	"	"	"	"	"	
Silver	0.0266	0.0200	"	"	"	"	"	"	
Zinc	7.50	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by HACH M8023

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIF0005	06/02/25	06/02/25	Hach 8000	

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

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	357	0.0500	mg/L dry	1	BIE0798	05/30/25	06/06/25	EPA 6020B	
Magnesium	313	0.0500	"	"	"	"	"	"	
Sodium	1300	0.0500	"	"	"	"	"	"	

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

BKG02@4-5'
2505143-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	12.1	0.00100	units	1	BIF0099	06/06/25	06/06/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.8		%	1	BIF0001	06/02/25	06/03/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	8.33	0.0100	mmhos/cm	1	BIE0803	05/30/25	06/02/25	EPA 120.1	

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

Date Sampled: **05/30/25 13:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.21		pH Units	1	BIE0801	05/30/25	06/02/25	EPA 9045D	

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

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 BIF0036 - EPA 5030 Soil MS

Blank (BIF0036-BLK1)

Prepared & Analyzed: 06/04/25

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>	0.0439		"	0.0400		110	50-150				
<i>Surrogate: Toluene-d8</i>	0.0398		"	0.0400		99.4	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0379		"	0.0400		94.6	50-150				

LCS (BIF0036-BS1)

Prepared & Analyzed: 06/04/25

Benzene	0.116	0.0020	mg/kg	0.100		116	70-130				
Toluene	0.115	0.0050	"	0.100		115	70-130				
Ethylbenzene	0.111	0.0050	"	0.100		111	70-130				
m,p-Xylene	0.203	0.010	"	0.200		101	70-130				
o-Xylene	0.0997	0.0050	"	0.100		99.7	70-130				
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100		104	70-130				
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100		104	70-130				
Naphthalene	0.108	0.0038	"	0.100		108	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0435		"	0.0400		109	50-150				
<i>Surrogate: Toluene-d8</i>	0.0397		"	0.0400		99.2	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0403		"	0.0400		101	50-150				

Matrix Spike (BIF0036-MS1)

Source: 2505143-01

Prepared & Analyzed: 06/04/25

Benzene	0.103	0.0020	mg/kg	0.100	ND	103	70-130				
Toluene	0.102	0.0050	"	0.100	ND	102	70-130				
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130				
m,p-Xylene	0.185	0.010	"	0.200	ND	92.7	70-130				
o-Xylene	0.0919	0.0050	"	0.100	ND	91.9	70-130				
1,2,4-Trimethylbenzene	0.0881	0.0050	"	0.100	ND	88.1	70-130				
1,3,5-Trimethylbenzene	0.0886	0.0050	"	0.100	ND	88.6	70-130				
Naphthalene	0.0939	0.0038	"	0.100	ND	93.9	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0407		"	0.0400		102	50-150				
<i>Surrogate: Toluene-d8</i>	0.0389		"	0.0400		97.3	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0374		"	0.0400		93.6	50-150				

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

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

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

Batch BIF0036 - EPA 5030 Soil MS

Matrix Spike Dup (BIF0036-MSD1)	Source: 2505143-01			Prepared & Analyzed: 06/04/25						
Benzene	0.106	0.0020	mg/kg	0.100	ND	106	70-130	2.86	30	
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	2.18	30	
Ethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	1.03	30	
m,p-Xylene	0.185	0.010	"	0.200	ND	92.5	70-130	0.243	30	
o-Xylene	0.0906	0.0050	"	0.100	ND	90.6	70-130	1.41	30	
1,2,4-Trimethylbenzene	0.0875	0.0050	"	0.100	ND	87.5	70-130	0.717	30	
1,3,5-Trimethylbenzene	0.0878	0.0050	"	0.100	ND	87.8	70-130	0.884	30	
Naphthalene	0.0856	0.0038	"	0.100	ND	85.6	70-130	9.26	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0425</i>		<i>"</i>	<i>0.0400</i>		<i>106</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0403</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0382</i>		<i>"</i>	<i>0.0400</i>		<i>95.4</i>	<i>50-150</i>			

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIF0041 - EPA 3550A

Blank (BIF0041-BLK1)

Prepared: 06/04/25 Analyzed: 06/13/25

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		92.8	50-140			

LCS (BIF0041-BS1)

Prepared: 06/04/25 Analyzed: 06/13/25

C10-C28 (DRO)	476	50	mg/kg	500		95.3	50-140			
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5		99.7	50-140			

Matrix Spike (BIF0041-MS1)

Source: 2505143-01

Prepared: 06/04/25 Analyzed: 06/13/25

C10-C28 (DRO)	471	50	mg/kg	500	15.6	91.1	50-140			
Surrogate: <i>o</i> -Terphenyl	9.20		"	12.5		73.6	50-140			

Matrix Spike Dup (BIF0041-MSD1)

Source: 2505143-01

Prepared: 06/04/25 Analyzed: 06/13/25

C10-C28 (DRO)	489	50	mg/kg	500	15.6	94.8	50-140	3.80	20	
Surrogate: <i>o</i> -Terphenyl	9.16		"	12.5		73.3	50-140			

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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

PAH by EPA Method 8270E SIM - Quality Control
Summit Scientific

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

Batch BIF0003 - EPA 5030 Soil MS

Blank (BIF0003-BLK1)

Prepared: 06/02/25 Analyzed: 06/04/25

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	0.0284		"	0.0333		85.1	40-140			
Surrogate: Fluoranthene-d10	0.0274		"	0.0333		82.2	40-140			

LCS (BIF0003-BS1)

Prepared: 06/02/25 Analyzed: 06/04/25

Acenaphthene	0.0238	0.00500	mg/kg	0.0333		71.4	40-140			
Anthracene	0.0262	0.00500	"	0.0333		78.7	40-140			
Benzo (a) anthracene	0.0259	0.00500	"	0.0333		77.6	40-140			
Benzo (a) pyrene	0.0261	0.00500	"	0.0333		78.4	40-140			
Benzo (b) fluoranthene	0.0271	0.00500	"	0.0333		81.3	40-140			
Benzo (k) fluoranthene	0.0269	0.00500	"	0.0333		80.8	40-140			
Chrysene	0.0260	0.00500	"	0.0333		77.9	40-140			
Dibenz (a,h) anthracene	0.0262	0.00500	"	0.0333		78.7	40-140			
Fluoranthene	0.0264	0.00500	"	0.0333		79.2	40-140			
Fluorene	0.0229	0.00500	"	0.0333		68.7	40-140			
Indeno (1,2,3-cd) pyrene	0.0268	0.00500	"	0.0333		80.5	40-140			
Pyrene	0.0256	0.00500	"	0.0333		76.9	40-140			
1-Methylnaphthalene	0.0246	0.00500	"	0.0333		73.8	40-140			
2-Methylnaphthalene	0.0244	0.00500	"	0.0333		73.3	40-140			
Surrogate: 2-Methylnaphthalene-d10	0.0246		"	0.0333		73.9	40-140			
Surrogate: Fluoranthene-d10	0.0261		"	0.0333		78.4	40-140			

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: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

PAH by EPA Method 8270E SIM - Quality Control

Summit Scientific

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

Batch BIF0003 - EPA 5030 Soil MS

Matrix Spike (BIF0003-MS1)		Source: 2505126-01			Prepared: 06/02/25		Analyzed: 06/04/25	
Acenaphthene	0.0258	0.00500	mg/kg	0.0333	ND	77.3	40-140	
Anthracene	0.0246	0.00500	"	0.0333	ND	73.7	40-140	
Benzo (a) anthracene	0.0247	0.00500	"	0.0333	ND	74.0	40-140	
Benzo (a) pyrene	0.0253	0.00500	"	0.0333	ND	76.0	40-140	
Benzo (b) fluoranthene	0.0263	0.00500	"	0.0333	ND	78.9	40-140	
Benzo (k) fluoranthene	0.0264	0.00500	"	0.0333	ND	79.2	40-140	
Chrysene	0.0255	0.00500	"	0.0333	ND	76.4	40-140	
Dibenz (a,h) anthracene	0.0240	0.00500	"	0.0333	ND	72.1	40-140	
Fluoranthene	0.0263	0.00500	"	0.0333	ND	78.9	40-140	
Fluorene	0.0261	0.00500	"	0.0333	ND	78.2	40-140	
Indeno (1,2,3-cd) pyrene	0.0255	0.00500	"	0.0333	ND	76.6	40-140	
Pyrene	0.0259	0.00500	"	0.0333	ND	77.7	40-140	
1-Methylnaphthalene	0.0261	0.00500	"	0.0333	ND	78.4	40-140	
2-Methylnaphthalene	0.0258	0.00500	"	0.0333	ND	77.4	40-140	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0251</i>		"	<i>0.0333</i>		<i>75.4</i>	<i>40-140</i>	
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0265</i>		"	<i>0.0333</i>		<i>79.5</i>	<i>40-140</i>	

Matrix Spike Dup (BIF0003-MSD1)		Source: 2505126-01			Prepared: 06/02/25		Analyzed: 06/04/25			
Acenaphthene	0.0178	0.00500	mg/kg	0.0333	ND	53.4	40-140	36.6	30	QR-03
Anthracene	0.0180	0.00500	"	0.0333	ND	54.1	40-140	30.7	30	QR-03
Benzo (a) anthracene	0.0185	0.00500	"	0.0333	ND	55.4	40-140	28.8	30	
Benzo (a) pyrene	0.0192	0.00500	"	0.0333	ND	57.5	40-140	27.7	30	
Benzo (b) fluoranthene	0.0196	0.00500	"	0.0333	ND	58.9	40-140	29.1	30	
Benzo (k) fluoranthene	0.0195	0.00500	"	0.0333	ND	58.6	40-140	29.9	30	
Chrysene	0.0192	0.00500	"	0.0333	ND	57.6	40-140	28.2	30	
Dibenz (a,h) anthracene	0.0181	0.00500	"	0.0333	ND	54.4	40-140	28.0	30	
Fluoranthene	0.0194	0.00500	"	0.0333	ND	58.2	40-140	30.1	30	QR-03
Fluorene	0.0190	0.00500	"	0.0333	ND	56.9	40-140	31.5	30	QR-03
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	0.0333	ND	57.4	40-140	28.7	30	
Pyrene	0.0194	0.00500	"	0.0333	ND	58.3	40-140	28.5	30	
1-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.7	40-140	32.1	30	QR-03
2-Methylnaphthalene	0.0182	0.00500	"	0.0333	ND	54.5	40-140	34.8	30	QR-03
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0184</i>		"	<i>0.0333</i>		<i>55.3</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0203</i>		"	<i>0.0333</i>		<i>61.0</i>	<i>40-140</i>			

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

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

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

Batch BIE0802 - EPA 3050B

Blank (BIE0802-BLK1)

Prepared: 05/30/25 Analyzed: 06/02/25

Boron ND 2.00 mg/L wet

LCS (BIE0802-BS1)

Prepared: 05/30/25 Analyzed: 06/02/25

Boron 5.95 2.00 mg/L wet 4.98 120 80-120

Duplicate (BIE0802-DUP1)

Source: 2505140-01

Prepared: 05/30/25 Analyzed: 06/02/25

Boron 0.0467 2.00 mg/L dry 0.0652 33.1 20 QR-01

Matrix Spike (BIE0802-MS1)

Source: 2505140-01

Prepared: 05/30/25 Analyzed: 06/02/25

Boron 5.73 2.00 mg/L dry 5.21 0.0652 109 75-125

Matrix Spike Dup (BIE0802-MSD1)

Source: 2505140-01

Prepared: 05/30/25 Analyzed: 06/02/25

Boron 5.96 2.00 mg/L dry 5.18 0.0652 114 75-125 3.88 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: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIE0800 - EPA 3050B

Blank (BIE0800-BLK1)

Prepared: 05/30/25 Analyzed: 06/03/25

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 (BIE0800-BS1)

Prepared: 05/30/25 Analyzed: 06/03/25

Arsenic	44.5	0.200	mg/kg wet	41.7	107	80-120				
Barium	44.9	0.400	"	41.7	108	80-120				
Cadmium	2.30	0.200	"	2.08	110	80-120				
Copper	45.6	0.400	"	41.7	110	80-120				
Lead	23.0	0.200	"	20.8	110	80-120				
Nickel	44.6	0.400	"	41.7	107	80-120				
Silver	2.12	0.0200	"	2.08	102	80-120				
Zinc	45.8	0.400	"	41.7	110	80-120				
Selenium	4.84	0.260	"	4.17	116	80-120				

Duplicate (BIE0800-DUP1)

Source: 2505141-01

Prepared: 05/30/25 Analyzed: 06/04/25

Arsenic	1.93	0.200	mg/kg dry	1.77	8.83	20				
Barium	66.6	0.400	"	64.3	3.61	20				
Cadmium	0.106	0.200	"	0.103	3.30	20				
Copper	2.52	0.400	"	4.53	57.0	20				QR-04
Lead	5.34	0.200	"	5.47	2.39	20				
Nickel	2.57	0.400	"	4.60	56.9	20				QR-04
Silver	0.0231	0.0200	"	0.0230	0.420	20				
Zinc	9.75	0.400	"	9.62	1.26	20				
Selenium	ND	0.260	"	ND		20				

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

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 BIE0800 - EPA 3050B

Matrix Spike (BIE0800-MS1)	Source: 2505141-01			Prepared: 05/30/25		Analyzed: 06/03/25					
Arsenic	25.4	0.200	mg/kg dry	48.6	1.77	48.7	75-125				QM-05
Barium	103	0.400	"	48.6	64.3	80.7	75-125				
Cadmium	2.29	0.200	"	2.43	0.103	89.9	75-125				
Copper	47.8	0.400	"	48.6	4.53	89.1	75-125				
Lead	26.5	0.200	"	24.3	5.47	86.7	75-125				
Nickel	47.8	0.400	"	48.6	4.60	88.9	75-125				
Silver	2.21	0.0200	"	2.43	0.0230	90.2	75-125				
Zinc	33.9	0.400	"	48.6	9.62	49.9	75-125				QM-05
Selenium	5.01	0.260	"	4.86	ND	103	75-125				

Matrix Spike Dup (BIE0800-MSD1)	Source: 2505141-01			Prepared: 05/30/25		Analyzed: 06/03/25					
Arsenic	25.8	0.200	mg/kg dry	48.6	1.77	49.4	75-125	1.28	25		QM-05
Barium	103	0.400	"	48.6	64.3	79.9	75-125	0.362	25		
Cadmium	2.28	0.200	"	2.43	0.103	89.4	75-125	0.469	25		
Copper	48.3	0.400	"	48.6	4.53	90.0	75-125	0.939	25		
Lead	26.9	0.200	"	24.3	5.47	88.1	75-125	1.32	25		
Nickel	48.2	0.400	"	48.6	4.60	89.7	75-125	0.745	25		
Silver	2.16	0.0200	"	2.43	0.0230	88.1	75-125	2.33	25		
Zinc	34.8	0.400	"	48.6	9.62	51.8	75-125	2.57	25		QM-05
Selenium	4.43	0.260	"	4.86	ND	91.2	75-125	12.4	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: PDC - Cecil 66N64W 12NWNW
Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

Hexavalent Chromium by HACH M8023 - Quality Control
Summit Scientific

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

Batch BIF0005 - 3060A Mod

Blank (BIF0005-BLK1)

Prepared & Analyzed: 06/02/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIF0005-BS1)

Prepared & Analyzed: 06/02/25

Chromium, Hexavalent 24.8 0.30 mg/kg wet 25.5 97.4 80-120

Duplicate (BIF0005-DUP1)

Source: 2505142-01

Prepared & Analyzed: 06/02/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIF0005-MS1)

Source: 2505142-01

Prepared & Analyzed: 06/02/25

Chromium, Hexavalent 33.2 0.30 mg/kg dry 32.6 ND 102 75-125

Matrix Spike Dup (BIF0005-MSD1)

Source: 2505142-01

Prepared & Analyzed: 06/02/25

Chromium, Hexavalent 31.6 0.30 mg/kg dry 31.3 ND 101 75-125 4.87 20

Summit Scientific

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



Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
 Project Manager: AJ Engelhardt

Reported:
 06/17/25 07:15

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

Summit Scientific

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

Batch BIE0798 - General Preparation

Blank (BIE0798-BLK1)

Prepared: 05/30/25 Analyzed: 06/06/25

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

LCS (BIE0798-BS1)

Prepared: 05/30/25 Analyzed: 06/06/25

Calcium	5.46	0.0500	mg/L wet	5.00	109	70-130			
Magnesium	5.01	0.0500	"	5.00	100	70-130			
Sodium	4.99	0.0500	"	5.00	99.7	70-130			

Summit Scientific

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



Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
 Project Manager: AJ Engelhardt

Reported:
 06/17/25 07:15

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 BIF0001 - General Preparation

Duplicate (BIF0001-DUP1)	Source: 2505142-01			Prepared: 06/02/25 Analyzed: 06/03/25	
% Solids	79.2		%	79.8	0.774 20

Summit Scientific

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



Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
 Project Manager: AJ Engelhardt

Reported:
 06/17/25 07:15

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

Summit Scientific

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

Batch BIE0803 - General Preparation

Blank (BIE0803-BLK1)

Prepared: 05/30/25 Analyzed: 06/02/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIE0803-BS1)

Prepared: 05/30/25 Analyzed: 06/02/25

Specific Conductance (EC) 0.147 0.0100 mmhos/cm 0.150 97.8 95-105

Duplicate (BIE0803-DUP1)

Source: 2505131-01

Prepared: 05/30/25 Analyzed: 06/02/25

Specific Conductance (EC) 0.872 0.0100 mmhos/cm 0.893 2.37 20

Summit Scientific

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



Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
 Project Manager: AJ Engelhardt

Reported:
 06/17/25 07:15

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 BIE0801 - General Preparation

LCS (BIE0801-BS1)

Prepared: 05/30/25 Analyzed: 06/02/25

pH	9.10	pH Units	9.18	99.1	95-105
----	------	----------	------	------	--------

Duplicate (BIE0801-DUP1)

Source: 2505131-01

Prepared: 05/30/25 Analyzed: 06/02/25

pH	8.37	pH Units	8.38	0.0956	20
----	------	----------	------	--------	----

Summit Scientific

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



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Cecil 66N64W 12NWNW

Project Number: 10517
Project Manager: AJ Engelhardt

Reported:
06/17/25 07:15

Notes and Definitions

- S-09 Surrogate recoveries for this sample are below established control limits. The sample matrix exhibits complex characteristics that can affect extraction efficiency, leading to reduced surrogate recoveries despite adherence to standard procedures.
- 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-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference