

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 25, 2024

Daniel Simpson
Tasman Geosciences
6855 W. 119th Ave.
Broomfield, CO 80020
RE: PDC - D.L. Phillips 24-31
Work Order #2410329

Enclosed are the results of analyses for samples received by Summit Scientific on 10/18/24 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Natalie Tessier For Paul Shrewsbury
President



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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01R-S@3'	2410329-01	Soil	10/18/24 11:09	10/18/24 17:55
FL01R-W@3'	2410329-02	Soil	10/18/24 11:55	10/18/24 17:55
BKG01@3'	2410329-03	Soil	10/18/24 12:52	10/18/24 17:55

Summit Scientific

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

Lab ID 2410329 Page 1 of 1

		Send Data To:	Send Invoice To:
Client: Noble/Tasman		Project Manager: Daniel Simpson	Company: PDC Energy
Address: 6855 W. 119th Ave.		E-Mail: tas-chevron-5@tasman-geo.com	Project Name/Location: <i>D.L. Phillips 24-31</i>
City/State/Zip: Broomfield/CO/ 80020			AFE#: <i>PC-001409</i>
Phone: 602-881-5716		Project Name: <i>D.L. Phillips 24-31</i>	PO/Billing Codes:
Sampler Name: McKenzie Reynolds		Project Number:	Contact: <i>Delbert Pace</i>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS		HOLD		
1	<i>FLOIR-563'</i>	<i>10/18/24</i>	<i>1107</i>	<i>3</i>			<i>X</i>			<i>X</i>				<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>		SAR, EC, pH by saturated paste	
2	<i>FLOIR-W63'</i>	<i>↓</i>	<i>1155</i>	<i>↓</i>										<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>			
3	<i>BKWD133'</i>	<i>↓</i>	<i>1252</i>	<i>↓</i>										<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>			
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Relinquished by: <i>[Signature]</i>	Date/Time: <i>10/18/2024 1600</i>	Received by: Tasman Lock Box	Date/Time: <i>10/18/2024 1600</i>	TAT Business Days	Field DO	Notes:
Relinquished by: <i>Tasman Lock Box</i>	Date/Time: <i>10/18/24 1755</i>	Received by: <i>[Signature]</i>	Date/Time: <i>10/18/24 1755</i>	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	<i>X</i> Field Turb.	
Temperature Upon Receipt: <u>10.1</u>	Corrected Temperature: <u>8</u>	IR gun #: <u>1</u>	HNO3 lot #: <u></u>			

S₂

Sample Receipt Checklist

S2 Work Order# 2410329

Client: ~~Noble~~ PDC Freisman Client Project ID: D.L. Phillips 24-31

Shipped 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"/>	note
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

10/18/24
Date/Time



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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

FL01R-S@3'
2410329-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0845	10/21/24	10/22/24	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: **10/18/24 11:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0439	110 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0847	10/21/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.6	92.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0820	10/21/24	10/23/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0218	65.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0237	71.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0983	10/23/24	10/25/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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FL01R-S@3'
2410329-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.72	0.200	mg/kg dry	1	BHJ1019	10/24/24	10/25/24	EPA 6020B	
Barium	128	0.400	"	"	"	"	"	"	
Cadmium	0.214	0.200	"	"	"	"	"	"	
Copper	5.77	0.400	"	"	"	"	"	"	
Lead	7.88	0.200	"	"	"	"	"	"	
Nickel	7.10	0.400	"	"	"	"	"	"	
Silver	0.0655	0.0200	"	"	"	"	"	"	
Zinc	22.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1012	10/24/24	10/24/24	EPA 7196A	

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

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	33.0	0.0500	mg/L dry	1	BHJ0964	10/23/24	10/25/24	EPA 6020B	
Magnesium	13.6	0.0500	"	"	"	"	"	"	
Sodium	5.45	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.202	0.00100	units	1	BHJ1115	10/25/24	10/25/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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FL01R-S@3'
2410329-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.3	%	1	BHJ0819	10/21/24	10/21/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.160	0.0100	mmhos/cm	1	BHJ0966	10/23/24	10/25/24	EPA 120.1	

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

Date Sampled: **10/18/24 11:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.94		pH Units	1	BHJ0965	10/23/24	10/25/24	EPA 9045D	

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Project: PDC - D.L. Phillips 24-31

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Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

FL01R-W@3'
2410329-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0845	10/21/24	10/22/24	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: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0413	103 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0847	10/21/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.3	98.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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FL01R-W@3'
2410329-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0820	10/21/24	10/23/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0189	56.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0983	10/23/24	10/25/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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FL01R-W@3'
2410329-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.00	0.200	mg/kg dry	1	BHJ1019	10/24/24	10/25/24	EPA 6020B	
Barium	124	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.53	0.400	"	"	"	"	"	"	
Lead	12.8	0.200	"	"	"	"	"	"	
Nickel	6.93	0.400	"	"	"	"	"	"	
Silver	0.0347	0.0200	"	"	"	"	"	"	
Zinc	22.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1012	10/24/24	10/24/24	EPA 7196A	

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

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.7	0.0500	mg/L dry	1	BHJ0964	10/23/24	10/25/24	EPA 6020B	
Magnesium	15.7	0.0500	"	"	"	"	"	"	
Sodium	10.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.392	0.00100	units	1	BHJ1115	10/25/24	10/25/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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FL01R-W@3'
2410329-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.4			%	1	BHJ0819	10/21/24	10/21/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.260	0.0100		mmhos/cm	1	BHJ0966	10/23/24	10/25/24	EPA 120.1	

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

Date Sampled: **10/18/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.54			pH Units	1	BHJ0965	10/23/24	10/25/24	EPA 9045D	

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

BKG01@3'
2410329-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHJ0983	10/23/24	10/25/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.64	0.200	mg/kg dry	1	BHJ1019	10/24/24	10/25/24	EPA 6020B	
Barium	118	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.88	0.400	"	"	"	"	"	"	
Lead	8.25	0.200	"	"	"	"	"	"	
Nickel	6.81	0.400	"	"	"	"	"	"	
Silver	0.0412	0.0200	"	"	"	"	"	"	
Zinc	21.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1012	10/24/24	10/24/24	EPA 7196A	

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

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	28.2	0.0500	mg/L dry	1	BHJ0964	10/23/24	10/25/24	EPA 6020B	
Magnesium	23.0	0.0500	"	"	"	"	"	"	
Sodium	4.86	0.0500	"	"	"	"	"	"	

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Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

BKG01@3'
2410329-03 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.165	0.00100	units	1	BHJ1115	10/25/24	10/25/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.4		%	1	BHJ0819	10/21/24	10/21/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.234	0.0100	mmhos/cm	1	BHJ0966	10/23/24	10/25/24	EPA 120.1	

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

Date Sampled: **10/18/24 12:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.66		pH Units	1	BHJ0965	10/23/24	10/25/24	EPA 9045D	

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Broomfield CO, 80020

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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 BHJ0845 - EPA 5030 Soil MS

Blank (BHJ0845-BLK1)

Prepared & Analyzed: 10/21/24

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0385</i>		<i>"</i>	<i>0.0400</i>		<i>96.2</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0409</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>50-150</i>				

LCS (BHJ0845-BS1)

Prepared & Analyzed: 10/21/24

Benzene	0.108	0.0020	mg/kg	0.100		108	70-130				
Toluene	0.111	0.0050	"	0.100		111	70-130				
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130				
m,p-Xylene	0.227	0.010	"	0.200		113	70-130				
o-Xylene	0.109	0.0050	"	0.100		109	70-130				
1,2,4-Trimethylbenzene	0.108	0.0050	"	0.100		108	70-130				
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130				
Naphthalene	0.0996	0.0038	"	0.100		99.6	70-130				
<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>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.7</i>	<i>50-150</i>				

Matrix Spike (BHJ0845-MS1)

Source: 2410327-01

Prepared & Analyzed: 10/21/24

Benzene	0.0990	0.0020	mg/kg	0.100	ND	99.0	70-130				
Toluene	0.102	0.0050	"	0.100	ND	102	70-130				
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130				
m,p-Xylene	0.213	0.010	"	0.200	ND	106	70-130				
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130				
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130				
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130				
Naphthalene	0.0915	0.0038	"	0.100	ND	91.5	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0424</i>		<i>"</i>	<i>0.0400</i>		<i>106</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>				

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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 BHJ0845 - EPA 5030 Soil MS

Matrix Spike Dup (BHJ0845-MSD1)	Source: 2410327-01			Prepared & Analyzed: 10/21/24						
Benzene	0.0986	0.0020	mg/kg	0.100	ND	98.6	70-130	0.456	30	
Toluene	0.101	0.0050	"	0.100	ND	101	70-130	1.13	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	3.06	30	
m,p-Xylene	0.207	0.010	"	0.200	ND	104	70-130	2.65	30	
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130	0.998	30	
1,2,4-Trimethylbenzene	0.0991	0.0050	"	0.100	ND	99.1	70-130	4.15	30	
1,3,5-Trimethylbenzene	0.0983	0.0050	"	0.100	ND	98.3	70-130	3.89	30	
Naphthalene	0.0949	0.0038	"	0.100	ND	94.9	70-130	3.67	30	
Surrogate: 1,2-Dichloroethane-d4	0.0434		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	50-150			

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Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHJ0847 - EPA 3550A

Blank (BHJ0847-BLK1)

Prepared: 10/21/24 Analyzed: 10/22/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.9		"	12.5		103		30-150			

LCS (BHJ0847-BS1)

Prepared: 10/21/24 Analyzed: 10/22/24

C10-C28 (DRO)	520	50	mg/kg	500		104		70-130			
Surrogate: <i>o</i> -Terphenyl	12.7		"	12.5		101		30-150			

Matrix Spike (BHJ0847-MS1)

Source: 2410327-01

Prepared: 10/21/24 Analyzed: 10/22/24

C10-C28 (DRO)	515	50	mg/kg	500	12.1	101		70-130			
Surrogate: <i>o</i> -Terphenyl	9.87		"	12.5		79.0		30-150			

Matrix Spike Dup (BHJ0847-MSD1)

Source: 2410327-01

Prepared: 10/21/24 Analyzed: 10/22/24

C10-C28 (DRO)	523	50	mg/kg	500	12.1	102		70-130	1.52	20	
Surrogate: <i>o</i> -Terphenyl	10.1		"	12.5		80.5		30-150			

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Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0820 - EPA 5030 Soil MS

Blank (BHJ0820-BLK1)

Prepared: 10/21/24 Analyzed: 10/22/24

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	0.0202		"	0.0333		60.6	40-150			
Surrogate: Fluoranthene-d10	0.0219		"	0.0333		65.7	40-150			

LCS (BHJ0820-BS1)

Prepared: 10/21/24 Analyzed: 10/22/24

Acenaphthene	0.0209	0.00500	mg/kg	0.0333		62.8	31-137			
Anthracene	0.0214	0.00500	"	0.0333		64.1	30-120			
Benzo (a) anthracene	0.0221	0.00500	"	0.0333		66.3	30-120			
Benzo (a) pyrene	0.0206	0.00500	"	0.0333		61.9	30-120			
Benzo (b) fluoranthene	0.0207	0.00500	"	0.0333		62.1	30-120			
Benzo (k) fluoranthene	0.0206	0.00500	"	0.0333		61.8	30-120			
Chrysene	0.0210	0.00500	"	0.0333		63.0	30-120			
Dibenz (a,h) anthracene	0.0258	0.00500	"	0.0333		77.4	30-120			
Fluoranthene	0.0218	0.00500	"	0.0333		65.3	30-120			
Fluorene	0.0214	0.00500	"	0.0333		64.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333		47.4	30-120			
Pyrene	0.0197	0.00500	"	0.0333		59.0	35-142			
1-Methylnaphthalene	0.0220	0.00500	"	0.0333		65.9	35-142			
2-Methylnaphthalene	0.0218	0.00500	"	0.0333		65.3	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0225		"	0.0333		67.6	40-150			
Surrogate: Fluoranthene-d10	0.0223		"	0.0333		66.8	40-150			

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Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0820 - EPA 5030 Soil MS

Matrix Spike (BHJ0820-MS1)	Source: 2410299-01			Prepared: 10/21/24 Analyzed: 10/22/24					
Acenaphthene	0.0182	0.00500	mg/kg	0.0333	ND	54.5	31-137		
Anthracene	0.0184	0.00500	"	0.0333	ND	55.3	30-120		
Benzo (a) anthracene	0.0197	0.00500	"	0.0333	ND	59.0	30-120		
Benzo (a) pyrene	0.0181	0.00500	"	0.0333	ND	54.4	30-120		
Benzo (b) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.6	30-120		
Benzo (k) fluoranthene	0.0177	0.00500	"	0.0333	ND	53.0	30-120		
Chrysene	0.0184	0.00500	"	0.0333	ND	55.3	30-120		
Dibenz (a,h) anthracene	0.0239	0.00500	"	0.0333	ND	71.6	30-120		
Fluoranthene	0.0190	0.00500	"	0.0333	ND	56.9	30-120		
Fluorene	0.0186	0.00500	"	0.0333	ND	55.9	30-120		
Indeno (1,2,3-cd) pyrene	0.0316	0.00500	"	0.0333	ND	94.7	30-120		
Pyrene	0.0179	0.00500	"	0.0333	ND	53.7	35-142		
1-Methylnaphthalene	0.0201	0.00500	"	0.0333	ND	60.2	15-130		
2-Methylnaphthalene	0.0201	0.00500	"	0.0333	ND	60.2	15-130		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0199</i>		<i>"</i>	<i>0.0333</i>		<i>59.6</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0194</i>		<i>"</i>	<i>0.0333</i>		<i>58.2</i>	<i>40-150</i>		

Matrix Spike Dup (BHJ0820-MSD1)	Source: 2410299-01			Prepared: 10/21/24 Analyzed: 10/22/24					
Acenaphthene	0.0162	0.00500	mg/kg	0.0333	ND	48.7	31-137	11.2	30
Anthracene	0.0172	0.00500	"	0.0333	ND	51.5	30-120	7.20	30
Benzo (a) anthracene	0.0178	0.00500	"	0.0333	ND	53.3	30-120	10.1	30
Benzo (a) pyrene	0.0165	0.00500	"	0.0333	ND	49.5	30-120	9.38	30
Benzo (b) fluoranthene	0.0164	0.00500	"	0.0333	ND	49.2	30-120	10.4	30
Benzo (k) fluoranthene	0.0156	0.00500	"	0.0333	ND	46.9	30-120	12.2	30
Chrysene	0.0164	0.00500	"	0.0333	ND	49.3	30-120	11.5	30
Dibenz (a,h) anthracene	0.0230	0.00500	"	0.0333	ND	69.0	30-120	3.62	30
Fluoranthene	0.0177	0.00500	"	0.0333	ND	53.1	30-120	6.98	30
Fluorene	0.0168	0.00500	"	0.0333	ND	50.3	30-120	10.7	30
Indeno (1,2,3-cd) pyrene	0.0299	0.00500	"	0.0333	ND	89.6	30-120	5.58	30
Pyrene	0.0163	0.00500	"	0.0333	ND	49.0	35-142	9.15	30
1-Methylnaphthalene	0.0184	0.00500	"	0.0333	ND	55.3	15-130	8.44	50
2-Methylnaphthalene	0.0185	0.00500	"	0.0333	ND	55.4	15-130	8.14	50
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0181</i>		<i>"</i>	<i>0.0333</i>		<i>54.2</i>	<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0182</i>		<i>"</i>	<i>0.0333</i>		<i>54.5</i>	<i>40-150</i>		

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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 BHJ0983 - EPA 3050B

Blank (BHJ0983-BLK1)

Prepared: 10/23/24 Analyzed: 10/24/24

Boron ND 2.00 mg/L

LCS (BHJ0983-BS1)

Prepared: 10/23/24 Analyzed: 10/24/24

Boron 5.12 2.00 mg/L 5.00 102 80-120

Duplicate (BHJ0983-DUP1)

Source: 2410327-01

Prepared: 10/23/24 Analyzed: 10/24/24

Boron 0.966 2.00 mg/L 0.977 1.12 20

Matrix Spike (BHJ0983-MS1)

Source: 2410327-01

Prepared: 10/23/24 Analyzed: 10/25/24

Boron 5.92 2.00 mg/L 5.01 0.977 98.7 75-125

Matrix Spike Dup (BHJ0983-MSD1)

Source: 2410327-01

Prepared: 10/23/24 Analyzed: 10/25/24

Boron 6.19 2.00 mg/L 5.01 0.977 104 75-125 4.48 25

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Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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 BHJ1019 - EPA 3050B

Blank (BHJ1019-BLK1)

Prepared: 10/24/24 Analyzed: 10/25/24

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 (BHJ1019-BS1)

Prepared: 10/24/24 Analyzed: 10/25/24

Arsenic	38.1	0.200	mg/kg wet	40.7	93.7	80-120
Barium	39.6	0.400	"	40.7	97.4	80-120
Cadmium	1.97	0.200	"	2.03	96.8	80-120
Copper	45.1	0.400	"	40.7	111	80-120
Lead	19.8	0.200	"	20.3	97.3	80-120
Nickel	45.1	0.400	"	40.7	111	80-120
Silver	2.00	0.0200	"	2.03	98.4	80-120
Zinc	45.0	0.400	"	40.7	111	80-120
Selenium	3.72	0.260	"	4.07	91.4	80-120

Duplicate (BHJ1019-DUP1)

Source: 2410327-01

Prepared: 10/24/24 Analyzed: 10/25/24

Arsenic	4.25	0.200	mg/kg dry	2.47	53.0	20	QR-03
Barium	102	0.400	"	74.2	31.6	20	QR-03
Cadmium	0.240	0.200	"	0.147	48.4	20	QR-03
Copper	6.65	0.400	"	5.40	20.7	20	QR-03
Lead	11.2	0.200	"	6.23	57.0	20	QR-03
Nickel	7.46	0.400	"	5.18	36.2	20	QR-03
Silver	0.0900	0.0200	"	0.0562	46.2	20	QR-03
Zinc	28.5	0.400	"	24.1	16.7	20	
Selenium	ND	0.260	"	ND		20	

Summit Scientific

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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 BHJ1019 - EPA 3050B

Matrix Spike (BHJ1019-MS1)

Source: 2410327-01

Prepared: 10/24/24 Analyzed: 10/25/24

Arsenic	45.3	0.200	mg/kg dry	46.4	2.47	92.3	75-125			
Barium	140	0.400	"	46.4	74.2	142	75-125			QM-05
Cadmium	2.57	0.200	"	2.32	0.147	104	75-125			
Copper	32.0	0.400	"	46.4	5.40	57.3	75-125			QM-05
Lead	32.3	0.200	"	23.2	6.23	112	75-125			
Nickel	32.9	0.400	"	46.4	5.18	59.7	75-125			QM-05
Silver	2.35	0.0200	"	2.32	0.0562	98.7	75-125			
Zinc	54.5	0.400	"	46.4	24.1	65.6	75-125			QM-05
Selenium	3.65	0.260	"	4.64	ND	78.6	75-125			

Matrix Spike Dup (BHJ1019-MSD1)

Source: 2410327-01

Prepared: 10/24/24 Analyzed: 10/25/24

Arsenic	45.8	0.200	mg/kg dry	46.4	2.47	93.3	75-125	0.950	25	
Barium	139	0.400	"	46.4	74.2	140	75-125	0.573	25	QM-05
Cadmium	2.43	0.200	"	2.32	0.147	98.2	75-125	5.74	25	
Copper	32.5	0.400	"	46.4	5.40	58.3	75-125	1.48	25	QM-05
Lead	31.3	0.200	"	23.2	6.23	108	75-125	3.25	25	
Nickel	32.9	0.400	"	46.4	5.18	59.7	75-125	0.0691	25	QM-05
Silver	2.24	0.0200	"	2.32	0.0562	94.3	75-125	4.47	25	
Zinc	53.5	0.400	"	46.4	24.1	63.3	75-125	1.92	25	QM-05
Selenium	3.57	0.260	"	4.64	ND	76.8	75-125	2.34	25	

Summit Scientific

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHJ1012 - 3060A Mod

Blank (BHJ1012-BLK1)

Prepared & Analyzed: 10/24/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHJ1012-BS1)

Prepared & Analyzed: 10/24/24

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

Duplicate (BHJ1012-DUP1)

Source: 2410326-01

Prepared & Analyzed: 10/24/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHJ1012-MS1)

Source: 2410326-01

Prepared & Analyzed: 10/24/24

Chromium, Hexavalent 27.7 0.30 mg/kg dry 26.2 ND 106 75-125

Matrix Spike Dup (BHJ1012-MSD1)

Source: 2410326-01

Prepared & Analyzed: 10/24/24

Chromium, Hexavalent 27.7 0.30 mg/kg dry 26.2 ND 106 75-125 0.189 20

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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

Summit Scientific

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

Batch BHJ0964 - General Preparation

Blank (BHJ0964-BLK1)

Prepared: 10/23/24 Analyzed: 10/25/24

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

LCS (BHJ0964-BS1)

Prepared: 10/23/24 Analyzed: 10/25/24

Calcium	5.58	0.0500	mg/L wet	5.00		112	70-130			
Magnesium	4.92	0.0500	"	5.00		98.4	70-130			
Sodium	4.97	0.0500	"	5.00		99.4	70-130			

Summit Scientific

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Tasman Geosciences
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 Broomfield CO, 80020

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
 Project Manager: Daniel Simpson

Reported:
 10/25/24 12:04

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 BHJ0819 - General Preparation

Duplicate (BHJ0819-DUP1)

Source: 2410316-01

Prepared & Analyzed: 10/21/24

% Solids	70.8		%		71.5			0.940		20	
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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

Summit Scientific

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

Batch BHJ0966 - General Preparation

Blank (BHJ0966-BLK1)

Prepared: 10/23/24 Analyzed: 10/25/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHJ0966-BS1)

Prepared: 10/23/24 Analyzed: 10/25/24

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 105 95-105

Duplicate (BHJ0966-DUP1)

Source: 2410326-01

Prepared: 10/23/24 Analyzed: 10/25/24

Specific Conductance (EC) 0.401 0.0100 mmhos/cm 0.405 1.02 20

Summit Scientific

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

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 BHJ0965 - General Preparation

LCS (BHJ0965-BS1)

Prepared: 10/23/24 Analyzed: 10/25/24

pH	9.13	pH Units	9.18	99.5	95-105
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Duplicate (BHJ0965-DUP1)

Source: 2410326-01

Prepared: 10/23/24 Analyzed: 10/25/24

pH	7.57	pH Units	7.58	0.132	20
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Summit Scientific

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

Project: PDC - D.L. Phillips 24-31

Project Number: PC-001409
Project Manager: Daniel Simpson

Reported:
10/25/24 12:04

Notes and Definitions

- 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.
- 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