

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 02, 2025

Bryce Goldade

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: PDC - Miller GJ 33-24 Tank Battery

Work Order #2501374

Enclosed are the results of analyses for samples received by Summit Scientific on 01/24/25 17:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Natalie Tessier For Paul Shrewsbury

President



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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH38@5'-6'	2501374-01	Soil	01/24/25 09:44	01/24/25 17:50
BH38@10'-11'	2501374-02	Soil	01/24/25 09:46	01/24/25 17:50
BH38@13'-14'	2501374-03	Soil	01/24/25 09:48	01/24/25 17:50
BH38@16'-17'	2501374-04	Soil	01/24/25 09:50	01/24/25 17:50
BH22@2.5'	2501374-05	Soil	01/24/25 10:12	01/24/25 17:50
BH22@5'-6'	2501374-06	Soil	01/24/25 10:14	01/24/25 17:50
BH22@10'-11'	2501374-07	Soil	01/24/25 10:16	01/24/25 17:50
BH22@13'-14'	2501374-08	Soil	01/24/25 10:18	01/24/25 17:50
BH22@16'-17'	2501374-09	Soil	01/24/25 10:20	01/24/25 17:50
BH23@2.5'	2501374-10	Soil	01/24/25 10:35	01/24/25 17:50
BH23@5'-6'	2501374-11	Soil	01/24/25 10:37	01/24/25 17:50
BH23@10'-11'	2501374-12	Soil	01/24/25 10:39	01/24/25 17:50
BH23@13'-14'	2501374-13	Soil	01/24/25 10:41	01/24/25 17:50
BH23@16'-17'	2501374-14	Soil	01/24/25 10:43	01/24/25 17:50
BH21@2.5'	2501374-15	Soil	01/24/25 11:30	01/24/25 17:50
BH21@5'-6'	2501374-16	Soil	01/24/25 11:32	01/24/25 17:50
BH21@10'-11'	2501374-17	Soil	01/24/25 11:37	01/24/25 17:50
BH21@13'-14'	2501374-18	Soil	01/24/25 11:39	01/24/25 17:50
BH21@16'-17'	2501374-19	Soil	01/24/25 11:43	01/24/25 17:50
BH24@2.5'	2501374-20	Soil	01/24/25 11:52	01/24/25 17:50
BH24@5'-6'	2501374-21	Soil	01/24/25 11:56	01/24/25 17:50
BH24@10'-11'	2501374-22	Soil	01/24/25 11:58	01/24/25 17:50
BH24@13'-14'	2501374-23	Soil	01/24/25 12:00	01/24/25 17:50
BH24@16'-17'	2501374-24	Soil	01/24/25 12:04	01/24/25 17:50
BH35@5'-6'	2501374-25	Soil	01/24/25 13:05	01/24/25 17:50
BH35@10'-11'	2501374-26	Soil	01/24/25 13:08	01/24/25 17:50
BH35@13'-14'	2501374-27	Soil	01/24/25 13:10	01/24/25 17:50

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH35@16'-17'	2501374-28	Soil	01/24/25 13:12	01/24/25 17:50
BH37@5'-6'	2501374-29	Soil	01/24/25 13:28	01/24/25 17:50
BH37@10'-11'	2501374-30	Soil	01/24/25 13:32	01/24/25 17:50
BH37@13'-14'	2501374-31	Soil	01/24/25 13:34	01/24/25 17:50
BH37@16'-17'	2501374-32	Soil	01/24/25 13:36	01/24/25 17:50

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

Lab ID	Page 1 of 3
2501374.1	

		Send Data To:	Send Invoice To:
Client: PDC / Tasman	Project Manager: Bryce Goldade	Company: PDC Energy	
Address: 6855 W 119th Ave	E-Mail: tas-chevron-4@tasman-geo.com	Project Name/Location: MILLER G.J 33-24 Tank Battery	
City/State/Zip: Broomfield / CO / 80020	E-Mail: RBUEUF27@chevron.com	AFE#:	
Phone: 303-487-1228	Project Name: MILLER G.J 33-24 Tank Battery	PO/Billing Codes:	
Sampler Name: Tanner Lacy	Project Number:	Contact: Karen Olson	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil			Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	
1	BH38@ 5'-6'	1/24/25	0944	2			X			X			X	X	X	X	X	X		
2	BH38@ 16'-11'		0946																	
3	BH38@ 13'-14'		0948																	
4	BH38@ 16'-17'		0950																	
5	BH22@ 2.5'		1012																	
6	BH22@ 5'-6'		1014																	
7	BH22@ 10'-11'		1016																	
8	BH22@ 13'-14'		1018																	
9	BH22@ 16'-17'		1020																	
10	BH23@ 2.5'		1035																	
11	BH23@ 5'-6'		1037																	
12	BH23@ 10'-11'		1039																	
13	BH23@ 13'-14'		1041																	
14	BH23@ 16'-17'		1043																	
15	BH21@ 2.5'		1130																	

Relinquished by: <i>Tanner Lacy</i>	Date/Time: 1/24/25 1541	Received by: Tasman Lockbox	Date/Time: 1/24/25 1541	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: <i>Tasman Lockbox</i>	Date/Time: 1/24/25 1750	Received by: <i>[Signature]</i>	Date/Time: 1/24/25 1750	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: <u>6.3</u>	Corrected Temperature: <u>6</u>	IR gun #:	HNO3 lot #:			

		Send Data To:	Send Invoice To:
Client: PDC / Tasman	Project Manager: Bryce Goldade	Company: PDC Energy	
Address: 6855 W 119th Ave	E-Mail: tas-chevron-4@tasman-geo.com	Project Name/Location: Miller G5 33-24 Tank Battery	
City/State/Zip: Broomfield / CO / 80020	E-Mail: RBUEUF27@chevron.com	AFE#:	
Phone: 303-487-1228	Project Name: Miller G5 33-24 Tank Battery	PO/Billing Codes:	
Sampler Name: Tanner Lacy	Project Number:	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	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS		HOLD
1	BH21@ 5-6'	1/24/25	1132	2			X			X			X	X	X	X	X	X		
2	BH21@ 10'-11'		1157																	
3	BH21@ 13'-14'		1139																	
4	BH21@ 16'-17'		1143																	
5	BH24@ 2.5		1152																	
6	BH24@ 5-6		1156																	
7	BH24@ 10-11		1158																	
8	BH24@ 13-14		1200																	
9	BH24@ 16-17		1204																	
10	BH35@ 5-6'		1305																	
11	BH35@ 10-11		1308																	
12	BH35@ 13-14'		1310																	
13	BH35@ 16-17'		1312																	
14	BH37@ 5-6'		1328																	
15	BH37@ 10'-11'		1332																	

Relinquished by: <i>Tanner Lacy</i> Date/Time: 01/24/2025 1541	Received by: Tasman Lockbox Date/Time: 01/24/2025 1541	TAT Business Days	Field DO	Notes:
		Same Day	Field EC	
1 Day	Field ORP			
2 Days	Field pH			
3 Days	Field Temp.			
Relinquished by: <i>Tasman Lockbox</i> Date/Time: 12/25 1750	Received by: <i>[Signature]</i> Date/Time: 12/25 1750	Standard	<input checked="" type="checkbox"/> Field Turb.	
Relinquished by:	Received by:	Date/Time:		
Temperature Upon Receipt: 0.3	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:	



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

Lab ID	Page 3 of 3
2501374.3	

Client: PDC / Tasman		Send Data To: Project Manager: <i>Bryce Goldade</i>		Send Invoice To: Company: PDC Energy	
Address: 6855 W 119th Ave		E-Mail: tas-chevron-4@tasman-geo.com		Project Name/Location: <i>Miller GJ 33-24 Tank Battery</i>	
City/State/Zip: Broomfield / CO / 80020		E-Mail: RBUEUF27@CHEVRON.COM		AFE#:	
Phone: 303-487-1228		Project Name: <i>Miller GJ 33-24 Tank Battery</i>		PO/Billing Codes:	
Sampler Name: Tanner Lacy		Project Number:		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	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD		
1	BH37@13'-14'	1/24/25	1334	2			X			X				X	X	X	X	X	X		
2	BH37@16'-17'	1	1336	1			+			1				1	1	1	1	1	1		
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <i>Tanner Lacy</i>	Date/Time: 1541 01/24/2025	Received by: <i>Tasman Lock Box</i>	Date/Time: 1541 01/24/2025	TAT Business Days	Field DO	Notes:
Relinquished by: <i>Tasman Lock Box</i>	Date/Time: 1750 01/24/2025	Received by: <i>[Signature]</i>	Date/Time: 1750 01/24/2025	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
				Standard	<input checked="" type="checkbox"/> Field Turb.	
Temperature Upon Receipt: 0.3	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:			

S₂

3/3

S2 Work Order# 2501374

Sample Receipt Checklist

Client: Proctorman Client Project ID: Miller GJ 33-24 Tank Battery

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

Matrix (Circle all that apply) Air/Soil/Water/Other [] Temp (°C) 6-3 Thermometer # 1

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

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on 20E
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		✓	15	
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

1/24/25

Date/Time



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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@5'-6'
2501374-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 09:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0398	99.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0385	96.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.99	55.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@5'-6'
2501374-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0138	41.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0181	54.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 09:44**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@5'-6'
2501374-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.884	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	121	0.400	"	"	"	"	"	"
Cadmium	0.307	0.200	"	"	"	"	"	"
Copper	4.37	0.400	"	"	"	"	"	"
Lead	14.0	0.200	"	"	"	"	"	"
Nickel	1.83	0.400	"	"	"	"	"	"
Silver	0.201	0.0200	"	"	"	"	"	"
Zinc	21.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	52.7	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	19.6	0.0500	"	"	"	"	"	"	
Sodium	82.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.47	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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6855 W. 119th Ave.
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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@5'-6'
2501374-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	90.7	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.776	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.05		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@10'-11'
2501374-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0387	96.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0390	97.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.10	72.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@10'-11'
2501374-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0164	49.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 09:46**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@10'-11'
2501374-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.792	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	93.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.15	0.400	"	"	"	"	"	"	
Lead	6.28	0.200	"	"	"	"	"	"	
Nickel	1.62	0.400	"	"	"	"	"	"	
Silver	0.0530	0.0200	"	"	"	"	"	"	
Zinc	9.04	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	64.4	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	21.6	0.0500	"	"	"	"	"	"	
Sodium	91.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.51	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@10'-11'
2501374-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.8			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.849	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 09:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	6.88			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@13'-14'
2501374-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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	2.6	0.50	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0360	90.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	96.9 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.06	64.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@13'-14'
2501374-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	0.00558	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: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0204	61.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0339	102 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 09:48**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@13'-14'
2501374-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.841	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	204	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.08	0.400	"	"	"	"	"	"	
Lead	8.44	0.200	"	"	"	"	"	"	
Nickel	1.24	0.400	"	"	"	"	"	"	
Silver	0.0258	0.0200	"	"	"	"	"	"	
Zinc	5.02	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	45.3	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	9.31	0.0500	"	"	"	"	"	"	
Sodium	79.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.80	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@13'-14'
2501374-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.4			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.619	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 09:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.76			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@16'-17'
2501374-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0409	102 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0380	95.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.08	72.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@16'-17'
2501374-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0237	71.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0316	94.8 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 09:50**

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

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@16'-17'
2501374-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.09	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	25.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.703	0.400	"	"	"	"	"	"	
Lead	1.31	0.200	"	"	"	"	"	"	
Nickel	0.471	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	2.88	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	21.1	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	4.35	0.0500	"	"	"	"	"	"	
Sodium	24.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.27	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH38@16'-17'
2501374-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.1		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.248	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.21		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@2.5'
2501374-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0396	98.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0392	97.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.30	58.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@2.5'
2501374-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0198	59.4 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0272	81.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:12**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@2.5'
2501374-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.21	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	288	0.400	"	"	"	"	"	"
Cadmium	0.282	0.200	"	"	"	"	"	"
Copper	2.25	0.400	"	"	"	"	"	"
Lead	9.27	0.200	"	"	"	"	"	"
Nickel	1.85	0.400	"	"	"	"	"	"
Silver	0.0500	0.0200	"	"	"	"	"	"
Zinc	9.54	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	414	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	120	0.0500	"	"	"	"	"	"	
Sodium	544	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.06	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:12**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@2.5'
2501374-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.7	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.25	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.42		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@5'-6'
2501374-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0371	92.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0441	110 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.54	52.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@5'-6'
2501374-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0174	52.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0234	70.2 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:14**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@5'-6'
2501374-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.29	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	245	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.48	0.400	"	"	"	"	"	"
Lead	7.60	0.200	"	"	"	"	"	"
Nickel	1.83	0.400	"	"	"	"	"	"
Silver	0.0226	0.0200	"	"	"	"	"	"
Zinc	6.51	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.2	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	8.61	0.0500	"	"	"	"	"	"	
Sodium	110	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.15	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@5'-6'
2501374-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	76.8			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.602	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.45			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@10'-11'
2501374-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0266	66.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0408	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0363	90.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.00	48.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@10'-11'
2501374-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0148	44.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0202	60.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:16**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@10'-11'
2501374-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.713	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	194	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.49	0.400	"	"	"	"	"	"	
Lead	8.20	0.200	"	"	"	"	"	"	
Nickel	1.84	0.400	"	"	"	"	"	"	
Silver	0.0351	0.0200	"	"	"	"	"	"	
Zinc	7.11	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	35.2	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	5.97	0.0500	"	"	"	"	"	"	
Sodium	51.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.12	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@10'-11'
2501374-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	81.1			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.397	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:16**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.41			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@13'-14'
2501374-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0401	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.08	64.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@13'-14'
2501374-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0137	41.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0215	64.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:18**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@13'-14'
2501374-08 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.583	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	124	0.400	"	"	"	"	"	"
Cadmium	0.225	0.200	"	"	"	"	"	"
Copper	2.04	0.400	"	"	"	"	"	"
Lead	8.96	0.200	"	"	"	"	"	"
Nickel	1.93	0.400	"	"	"	"	"	"
Silver	0.0554	0.0200	"	"	"	"	"	"
Zinc	7.51	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.6	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	5.37	0.0500	"	"	"	"	"	"	
Sodium	46.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.97	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:18**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@13'-14'
2501374-08 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	76.1	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.310	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.41		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@16'-17'
2501374-09 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0385	96.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0375	93.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.64	77.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@16'-17'
2501374-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/09/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0159	47.8 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0236	70.7 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:20**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@16'-17'
2501374-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.15	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	17.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.648	0.400	"	"	"	"	"	"	
Lead	2.92	0.200	"	"	"	"	"	"	
Nickel	0.602	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	2.99	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	22.4	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	4.46	0.0500	"	"	"	"	"	"	
Sodium	31.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.61	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH22@16'-17'
2501374-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.8			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.293	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.32			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@2.5'
2501374-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0397	99.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0383	95.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.88	63.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@2.5'
2501374-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.5 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0249	74.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:35**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@2.5'
2501374-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.04	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	227	0.400	"	"	"	"	"	"
Cadmium	0.287	0.200	"	"	"	"	"	"
Copper	2.19	0.400	"	"	"	"	"	"
Lead	9.04	0.200	"	"	"	"	"	"
Nickel	1.90	0.400	"	"	"	"	"	"
Silver	0.0429	0.0200	"	"	"	"	"	"
Zinc	8.82	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	237	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	64.7	0.0500	"	"	"	"	"	"	
Sodium	354	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.26	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:35**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@2.5'
2501374-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.3	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.70	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@5'-6'
2501374-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0374	93.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0378	94.5 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.42	75.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@5'-6'
2501374-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0151	45.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0230	69.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:37**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@5'-6'
2501374-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.11	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	18.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.665	0.400	"	"	"	"	"	"	
Lead	2.40	0.200	"	"	"	"	"	"	
Nickel	0.646	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	2.77	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	22.9	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	3.95	0.0500	"	"	"	"	"	"	
Sodium	38.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.96	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@5'-6'
2501374-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.7		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.258	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.77		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@10'-11'
2501374-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0392	97.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0391	97.7 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.18	57.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@10'-11'
2501374-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/13/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0176	52.8 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:39**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@10'-11'
2501374-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.457	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	106	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.768	0.400	"	"	"	"	"	"	
Lead	4.78	0.200	"	"	"	"	"	"	
Nickel	1.23	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	5.84	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	40.9	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	6.84	0.0500	"	"	"	"	"	"	
Sodium	55.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.10	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@10'-11'
2501374-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	75.5		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.404	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.37		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@13'-14'
2501374-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0383	95.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.32	66.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@13'-14'
2501374-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0150	44.9 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0224	67.2 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:41**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@13'-14'
2501374-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.381	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	140	0.400	"	"	"	"	"	"
Cadmium	0.210	0.200	"	"	"	"	"	"
Copper	2.06	0.400	"	"	"	"	"	"
Lead	9.15	0.200	"	"	"	"	"	"
Nickel	1.63	0.400	"	"	"	"	"	"
Silver	0.0540	0.0200	"	"	"	"	"	"
Zinc	6.70	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	89.1	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	16.0	0.0500	"	"	"	"	"	"	
Sodium	48.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.25	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:41**

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

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



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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@13'-14'
2501374-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	75.9	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.372	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.97		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@16'-17'
2501374-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0375	93.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0375	93.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.64	77.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@16'-17'
2501374-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0176	52.8 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0269	80.8 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 10:43**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@16'-17'
2501374-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.76	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	20.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.42	0.400	"	"	"	"	"	"	
Lead	2.93	0.200	"	"	"	"	"	"	
Nickel	1.22	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	3.04	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4.14	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	0.903	0.0500	"	"	"	"	"	"	
Sodium	5.64	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.655	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH23@16'-17'
2501374-14 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.4		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0493	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.02		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@2.5'
2501374-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0378	94.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0382	95.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.29	66.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@2.5'
2501374-15 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0149	44.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0204	61.1 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:30**

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

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@2.5'
2501374-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.07	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	247	0.400	"	"	"	"	"	"
Cadmium	0.212	0.200	"	"	"	"	"	"
Copper	1.88	0.400	"	"	"	"	"	"
Lead	6.86	0.200	"	"	"	"	"	"
Nickel	1.65	0.400	"	"	"	"	"	"
Silver	0.0292	0.0200	"	"	"	"	"	"
Zinc	8.37	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	210	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	63.0	0.0500	"	"	"	"	"	"	
Sodium	392	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.09	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:30**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@2.5'
2501374-15 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.2	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.74	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.99		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@5'-6'
2501374-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 11:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0382	95.6 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.08	56.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@5'-6'
2501374-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/13/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0214	64.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0219	65.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1456	02/25/25	03/01/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:32**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@5'-6'
2501374-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.865	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	115	0.400	"	"	"	"	"	"	
Cadmium	0.242	0.200	"	"	"	"	"	"	
Copper	2.97	0.400	"	"	"	"	"	"	
Lead	8.72	0.200	"	"	"	"	"	"	
Nickel	2.37	0.400	"	"	"	"	"	"	
Silver	0.0959	0.0200	"	"	"	"	"	"	
Zinc	11.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	36.8	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	13.4	0.0500	"	"	"	"	"	"	
Sodium	41.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.48	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:32**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@5'-6'
2501374-16 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	90.0	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.463	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.24		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@10'-11'
2501374-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0368	92.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0354	88.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.26	58.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@10'-11'
2501374-17 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/13/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	60.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0201	60.4 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:37**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@10'-11'
2501374-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.410	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	101	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.975	0.400	"	"	"	"	"	"	
Lead	6.11	0.200	"	"	"	"	"	"	
Nickel	1.25	0.400	"	"	"	"	"	"	
Silver	0.0235	0.0200	"	"	"	"	"	"	
Zinc	5.91	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	50.5	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	5.29	0.0500	"	"	"	"	"	"	
Sodium	40.1	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.43	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@10'-11'
2501374-17 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	75.6		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.269	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:37**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.69		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@13'-14'
2501374-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 11:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0380	95.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0408	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0374	93.5 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.28	58.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@13'-14'
2501374-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0144	43.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0211	63.4 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:39**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@13'-14'
2501374-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.43	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B
Barium	147	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.82	0.400	"	"	"	"	"	"
Lead	9.44	0.200	"	"	"	"	"	"
Nickel	2.13	0.400	"	"	"	"	"	"
Silver	0.0467	0.0200	"	"	"	"	"	"
Zinc	9.60	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	157	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	27.5	0.0500	"	"	"	"	"	"	
Sodium	31.7	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.614	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@13'-14'
2501374-18 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	74.8		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.201	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.31		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@16'-17'
2501374-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0455	114 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.7	85.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@16'-17'
2501374-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	60.4 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0315	94.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:43**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@16'-17'
2501374-19 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.87	0.200	mg/kg dry	1	BIC0416	03/07/25	03/25/25	EPA 6020B	
Barium	30.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.21	0.400	"	"	"	"	"	"	
Lead	3.51	0.200	"	"	"	"	"	"	
Nickel	1.17	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	4.42	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	24.0	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	4.81	0.0500	"	"	"	"	"	"	
Sodium	30.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.51	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH21@16'-17'
2501374-19 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.3			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.285	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.50			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@2.5'
2501374-20 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIB0255	02/06/25	02/10/25	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: **01/24/25 11:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0456	114 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0412	103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIB0250	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.63	61.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@2.5'
2501374-20 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0036	02/03/25	02/10/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0140	42.0 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0234	70.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:52**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@2.5'
2501374-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.96	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B
Barium	226	0.400	"	"	"	"	"	"
Cadmium	0.296	0.200	"	"	"	"	"	"
Copper	5.92	0.400	"	"	"	"	"	"
Lead	8.21	0.200	"	"	"	"	"	"
Nickel	4.71	0.400	"	"	"	"	"	"
Silver	0.0228	0.0200	"	"	"	"	"	"
Zinc	28.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	190	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	46.4	0.0500	"	"	"	"	"	"	
Sodium	204	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.44	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:52**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@2.5'
2501374-20 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.9	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.06	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.87		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@5'-6'
2501374-21 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0378	94.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.7 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0377	94.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/06/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.39	67.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@5'-6'
2501374-21 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0234	70.3 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:56**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@5'-6'
2501374-21 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.05	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B	
Barium	393	0.400	"	"	"	"	"	"	
Cadmium	0.331	0.200	"	"	"	"	"	"	
Copper	5.03	0.400	"	"	"	"	"	"	
Lead	10.3	0.200	"	"	"	"	"	"	
Nickel	5.37	0.400	"	"	"	"	"	"	
Silver	0.0250	0.0200	"	"	"	"	"	"	
Zinc	21.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	43.8	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	9.25	0.0500	"	"	"	"	"	"	
Sodium	74.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.67	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:56**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@5'-6'
2501374-21 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.5	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.561	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.50		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@10'-11'
2501374-22 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0374	93.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	96.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/06/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.22	65.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@10'-11'
2501374-22 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0200	60.0 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0184	55.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 11:58**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@10'-11'
2501374-22 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.959	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B
Barium	94.5	0.400	"	"	"	"	"	"
Cadmium	0.253	0.200	"	"	"	"	"	"
Copper	4.35	0.400	"	"	"	"	"	"
Lead	7.21	0.200	"	"	"	"	"	"
Nickel	5.62	0.400	"	"	"	"	"	"
Silver	0.0256	0.0200	"	"	"	"	"	"
Zinc	21.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.0	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	4.58	0.0500	"	"	"	"	"	"	
Sodium	41.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.86	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 11:58**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@10'-11'
2501374-22 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	77.9	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.317	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.56		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@13'-14'
2501374-23 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0375	93.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0386	96.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/06/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.64	77.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@13'-14'
2501374-23 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	60.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	56.9 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 12:00**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@13'-14'
2501374-23 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.49	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B	
Barium	73.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.17	0.400	"	"	"	"	"	"	
Lead	7.50	0.200	"	"	"	"	"	"	
Nickel	4.19	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	19.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.5	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	5.52	0.0500	"	"	"	"	"	"	
Sodium	45.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.98	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@13'-14'
2501374-23 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.0		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.331	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.04		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@16'-17'
2501374-24 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0383	95.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0373	93.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.83	70.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@16'-17'
2501374-24 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0257	77.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0244	73.2 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 12:04**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@16'-17'
2501374-24 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.96	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B	
Barium	14.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.49	0.400	"	"	"	"	"	"	
Lead	1.99	0.200	"	"	"	"	"	"	
Nickel	1.35	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	6.88	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.6	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	5.90	0.0500	"	"	"	"	"	"	
Sodium	28.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.26	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH24@16'-17'
2501374-24 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.0			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.299	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.56			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@5'-6'
2501374-25 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0387	96.7 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.81	62.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@5'-6'
2501374-25 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0286	85.8 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0263	79.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:05**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@5'-6'
2501374-25 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.28	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B	
Barium	235	0.400	"	"	"	"	"	"	
Cadmium	0.245	0.200	"	"	"	"	"	"	
Copper	3.89	0.400	"	"	"	"	"	"	
Lead	8.52	0.200	"	"	"	"	"	"	
Nickel	5.65	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	20.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	119	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	21.9	0.0500	"	"	"	"	"	"	
Sodium	337	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.45	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@5'-6'
2501374-25 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	70.9		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.79	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.06		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@10'-11'
2501374-26 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0442	110 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0408	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0391	97.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.71	69.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@10'-11'
2501374-26 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0177	53.0 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0182	54.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:08**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@10'-11'
2501374-26 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.32	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B
Barium	315	0.400	"	"	"	"	"	"
Cadmium	0.215	0.200	"	"	"	"	"	"
Copper	6.00	0.400	"	"	"	"	"	"
Lead	12.7	0.200	"	"	"	"	"	"
Nickel	5.18	0.400	"	"	"	"	"	"
Silver	0.0409	0.0200	"	"	"	"	"	"
Zinc	24.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.1	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	4.41	0.0500	"	"	"	"	"	"	
Sodium	40.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.95	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:08**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@10'-11'
2501374-26 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	73.4	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.260	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.95		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@13'-14'
2501374-27 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0388	96.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0383	95.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.51	68.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@13'-14'
2501374-27 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0182	54.7 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0181	54.4 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:10**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@13'-14'
2501374-27 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.64	0.200	mg/kg dry	1	BIC0417	03/07/25	03/25/25	EPA 6020B	
Barium	27.4	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.57	0.400	"	"	"	"	"	"	
Lead	3.42	0.200	"	"	"	"	"	"	
Nickel	1.84	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.69	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.2	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	7.05	0.0500	"	"	"	"	"	"	
Sodium	48.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.89	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@13'-14'
2501374-27 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.423	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.17		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@16'-17'
2501374-28 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0373	93.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.27	74.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@16'-17'
2501374-28 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0266	79.7 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0252	75.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:12**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@16'-17'
2501374-28 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.74	0.200	mg/kg dry	1	BIC0417	03/07/25	03/26/25	EPA 6020B	
Barium	25.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.88	0.400	"	"	"	"	"	"	
Lead	1.96	0.200	"	"	"	"	"	"	
Nickel	1.51	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.69	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.3	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	6.03	0.0500	"	"	"	"	"	"	
Sodium	29.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.25	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH35@16'-17'
2501374-28 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.6			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.306	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.62			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@5'-6'
2501374-29 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.19	65.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@5'-6'
2501374-29 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/14/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0163	48.8 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0164	49.2 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:28**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@5'-6'
2501374-29 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.40	0.200	mg/kg dry	1	BIC0417	03/07/25	03/26/25	EPA 6020B
Barium	66.2	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.31	0.400	"	"	"	"	"	"
Lead	6.05	0.200	"	"	"	"	"	"
Nickel	4.85	0.400	"	"	"	"	"	"
Silver	0.0407	0.0200	"	"	"	"	"	"
Zinc	22.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	42.5	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	11.1	0.0500	"	"	"	"	"	"	
Sodium	37.2	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.31	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@5'-6'
2501374-29 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.2			%	1	BIB0460	02/10/25	02/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.329	0.0100		mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:28**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.34			pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@10'-11'
2501374-30 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0385	96.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0391	97.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.59	60.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@10'-11'
2501374-30 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0236	70.9 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0222	66.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:32**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@10'-11'
2501374-30 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.17	0.200	mg/kg dry	1	BIC0417	03/07/25	03/26/25	EPA 6020B
Barium	119	0.400	"	"	"	"	"	"
Cadmium	0.352	0.200	"	"	"	"	"	"
Copper	9.81	0.400	"	"	"	"	"	"
Lead	16.0	0.200	"	"	"	"	"	"
Nickel	7.13	0.400	"	"	"	"	"	"
Silver	0.166	0.0200	"	"	"	"	"	"
Zinc	40.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.3	0.0500	mg/L dry	1	BIB0791	02/14/25	02/26/25	EPA 6020B	
Magnesium	11.8	0.0500	"	"	"	"	"	"	
Sodium	53.2	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.91	0.00100	units	1	BIB1542	02/26/25	02/26/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:32**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@10'-11'
2501374-30 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.1	%	1	BIB0460	02/10/25	02/11/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.418	0.0100	mmhos/cm	1	BIB0793	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BIB0792	02/14/25	02/19/25	EPA 9045D	

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Tasman Geosciences
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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@13'-14'
2501374-31 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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	12	0.50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0430	108 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	160	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.65	53.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@13'-14'
2501374-31 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.00623	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0239	71.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0265	79.6 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:34**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@13'-14'
2501374-31 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.95	0.200	mg/kg dry	1	BIC0417	03/07/25	03/26/25	EPA 6020B
Barium	89.5	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.87	0.400	"	"	"	"	"	"
Lead	6.39	0.200	"	"	"	"	"	"
Nickel	4.49	0.400	"	"	"	"	"	"
Silver	0.0257	0.0200	"	"	"	"	"	"
Zinc	20.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	76.3	0.0500	mg/L dry	1	BIB0788	02/14/25	02/25/25	EPA 6020B	
Magnesium	9.92	0.0500	"	"	"	"	"	"	
Sodium	27.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.787	0.00100	units	1	BIB1416	02/25/25	02/25/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@13'-14'
2501374-31 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.5		%	1	BIB0494	02/10/25	02/12/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.227	0.0100	mmhos/cm	1	BIB0789	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.89		pH Units	1	BIB0790	02/14/25	02/19/25	EPA 9045D	

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@16'-17'
2501374-32 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB0256	02/06/25	02/12/25	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: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0440	110 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB0254	02/06/25	02/07/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.03	72.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@16'-17'
2501374-32 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB0038	02/03/25	02/05/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0247	74.0 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0241	72.4 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIB1485	02/26/25	03/11/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/24/25 13:36**

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@16'-17'
2501374-32 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.56	0.200	mg/kg dry	1	BIC0417	03/07/25	03/26/25	EPA 6020B	
Barium	28.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.70	0.400	"	"	"	"	"	"	
Lead	3.58	0.200	"	"	"	"	"	"	
Nickel	2.00	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	9.40	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB0406	02/08/25	02/08/25	EPA 7196A	

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

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.1	0.0500	mg/L dry	1	BIB0788	02/14/25	02/25/25	EPA 6020B	
Magnesium	3.55	0.0500	"	"	"	"	"	"	
Sodium	17.4	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.979	0.00100	units	1	BIB1416	02/25/25	02/25/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

BH37@16'-17'
2501374-32 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	91.2			%	1	BIB0494	02/10/25	02/12/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.273	0.0100		mmhos/cm	1	BIB0789	02/14/25	02/19/25	EPA 120.1	

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

Date Sampled: **01/24/25 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.54			pH Units	1	BIB0790	02/14/25	02/19/25	EPA 9045D	

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BIB0255 - EPA 5030 Soil MS

Blank (BIB0255-BLK1)

Prepared: 02/06/25 Analyzed: 02/10/25

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
Naphthalene	ND	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0458		"	0.0400		114	50-150				
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150				
Surrogate: 4-Bromofluorobenzene	0.0427		"	0.0400		107	50-150				

LCS (BIB0255-BS1)

Prepared: 02/06/25 Analyzed: 02/10/25

Benzene	0.0857	0.0020	mg/kg	0.100		85.7	70-130				
Toluene	0.0867	0.0050	"	0.100		86.7	70-130				
Ethylbenzene	0.0843	0.0050	"	0.100		84.3	70-130				
m,p-Xylene	0.173	0.010	"	0.200		86.4	70-130				
o-Xylene	0.0908	0.0050	"	0.100		90.8	70-130				
1,2,4-Trimethylbenzene	0.0899	0.0050	"	0.100		89.9	70-130				
1,3,5-Trimethylbenzene	0.0875	0.0050	"	0.100		87.5	70-130				
Naphthalene	0.111	0.0038	"	0.100		111	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0441		"	0.0400		110	50-150				
Surrogate: Toluene-d8	0.0394		"	0.0400		98.5	50-150				
Surrogate: 4-Bromofluorobenzene	0.0428		"	0.0400		107	50-150				

Matrix Spike (BIB0255-MS1)

Source: 2501374-01

Prepared: 02/06/25 Analyzed: 02/10/25

Benzene	0.0915	0.0020	mg/kg	0.100	ND	91.5	70-130				
Toluene	0.0926	0.0050	"	0.100	ND	92.6	70-130				
Ethylbenzene	0.0865	0.0050	"	0.100	ND	86.5	70-130				
m,p-Xylene	0.176	0.010	"	0.200	ND	87.8	70-130				
o-Xylene	0.0925	0.0050	"	0.100	ND	92.5	70-130				
1,2,4-Trimethylbenzene	0.0914	0.0050	"	0.100	ND	91.4	70-130				
1,3,5-Trimethylbenzene	0.0891	0.0050	"	0.100	ND	89.1	70-130				
Naphthalene	0.101	0.0038	"	0.100	ND	101	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0457		"	0.0400		114	50-150				
Surrogate: Toluene-d8	0.0403		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0430		"	0.0400		108	50-150				

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BIB0255 - EPA 5030 Soil MS

Matrix Spike Dup (BIB0255-MSD1)

Source: 2501374-01

Prepared: 02/06/25 Analyzed: 02/10/25

Benzene	0.0916	0.0020	mg/kg	0.100	ND	91.6	70-130	0.164	30
Toluene	0.0935	0.0050	"	0.100	ND	93.5	70-130	0.903	30
Ethylbenzene	0.0865	0.0050	"	0.100	ND	86.5	70-130	0.0694	30
m,p-Xylene	0.176	0.010	"	0.200	ND	88.1	70-130	0.324	30
o-Xylene	0.0915	0.0050	"	0.100	ND	91.5	70-130	1.14	30
1,2,4-Trimethylbenzene	0.0914	0.0050	"	0.100	ND	91.4	70-130	0.0656	30
1,3,5-Trimethylbenzene	0.0881	0.0050	"	0.100	ND	88.1	70-130	1.08	30
Naphthalene	0.103	0.0038	"	0.100	ND	103	70-130	1.59	30
Surrogate: 1,2-Dichloroethane-d4	0.0465		"	0.0400		116	50-150		
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150		
Surrogate: 4-Bromofluorobenzene	0.0426		"	0.0400		106	50-150		

Batch BIB0256 - EPA 5030 Soil MS

Blank (BIB0256-BLK1)

Prepared: 02/06/25 Analyzed: 02/12/25

Benzene	ND	0.0020	mg/kg						
Toluene	ND	0.0050	"						
Ethylbenzene	ND	0.0050	"						
Xylenes (total)	ND	0.010	"						
1,2,4-Trimethylbenzene	ND	0.0050	"						
1,3,5-Trimethylbenzene	ND	0.0050	"						
Naphthalene	ND	0.0038	"						
Gasoline Range Hydrocarbons	ND	0.50	"						
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.4	50-150		
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150		
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	50-150		

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BIB0256 - EPA 5030 Soil MS

LCS (BIB0256-BS1)

Prepared: 02/06/25 Analyzed: 02/12/25

Benzene	0.0929	0.0020	mg/kg	0.100		92.9	70-130			
Toluene	0.0919	0.0050	"	0.100		91.9	70-130			
Ethylbenzene	0.0946	0.0050	"	0.100		94.6	70-130			
m,p-Xylene	0.177	0.010	"	0.200		88.6	70-130			
o-Xylene	0.0895	0.0050	"	0.100		89.5	70-130			
1,2,4-Trimethylbenzene	0.0848	0.0050	"	0.100		84.8	70-130			
1,3,5-Trimethylbenzene	0.0867	0.0050	"	0.100		86.7	70-130			
Naphthalene	0.0898	0.0038	"	0.100		89.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.5	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	50-150			

Matrix Spike (BIB0256-MS1)

Source: 2501374-21

Prepared: 02/06/25 Analyzed: 02/12/25

QM-01

Benzene	0.0572	0.0020	mg/kg	0.100	ND	57.2	70-130			
Toluene	0.0486	0.0050	"	0.100	ND	48.6	70-130			
Ethylbenzene	0.0848	0.0050	"	0.100	ND	84.8	70-130			
m,p-Xylene	0.0621	0.010	"	0.200	ND	31.0	70-130			
o-Xylene	0.0565	0.0050	"	0.100	ND	56.5	70-130			
1,2,4-Trimethylbenzene	0.0165	0.0050	"	0.100	ND	16.5	70-130			
1,3,5-Trimethylbenzene	0.0744	0.0050	"	0.100	ND	74.4	70-130			
Naphthalene	0.0596	0.0038	"	0.100	ND	59.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.5	50-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150			

Matrix Spike Dup (BIB0256-MSD1)

Source: 2501374-21

Prepared: 02/06/25 Analyzed: 02/12/25

QM-01

Benzene	0.0664	0.0020	mg/kg	0.100	ND	66.4	70-130	15.0	30	
Toluene	0.0662	0.0050	"	0.100	ND	66.2	70-130	30.6	30	
Ethylbenzene	0.0679	0.0050	"	0.100	ND	67.9	70-130	22.2	30	
m,p-Xylene	0.122	0.010	"	0.200	ND	60.8	70-130	64.9	30	
o-Xylene	0.0663	0.0050	"	0.100	ND	66.3	70-130	16.0	30	
1,2,4-Trimethylbenzene	0.0528	0.0050	"	0.100	ND	52.8	70-130	105	30	
1,3,5-Trimethylbenzene	0.0574	0.0050	"	0.100	ND	57.4	70-130	25.9	30	
Naphthalene	0.0519	0.0038	"	0.100	ND	51.9	70-130	13.7	30	
Surrogate: 1,2-Dichloroethane-d4	0.0396		"	0.0400		99.0	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.2	50-150			

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6855 W. 119th Ave.
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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIB0250 - EPA 3550A

Blank (BIB0250-BLK1)

Prepared: 02/06/25 Analyzed: 02/07/25

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	9.54		"	12.5		76.3	30-150				

LCS (BIB0250-BS1)

Prepared: 02/06/25 Analyzed: 02/07/25

C10-C28 (DRO)	396	50	mg/kg	500		79.2	70-130				
Surrogate: <i>o</i> -Terphenyl	10.0		"	12.5		80.2	30-150				

Matrix Spike (BIB0250-MS1)

Source: 2501374-01

Prepared: 02/06/25 Analyzed: 02/07/25

C10-C28 (DRO)	453	50	mg/kg	500	ND	90.7	70-130				
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5		89.8	30-150				

Matrix Spike Dup (BIB0250-MSD1)

Source: 2501374-01

Prepared: 02/06/25 Analyzed: 02/07/25

C10-C28 (DRO)	493	50	mg/kg	500	ND	98.7	70-130	8.45	20		
Surrogate: <i>o</i> -Terphenyl	13.1		"	12.5		105	30-150				

Batch BIB0254 - EPA 3550A

Blank (BIB0254-BLK1)

Prepared & Analyzed: 02/06/25

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	11.3		"	12.5		90.5	30-150				

LCS (BIB0254-BS1)

Prepared & Analyzed: 02/06/25

C10-C28 (DRO)	520	50	mg/kg	500		104	70-130				
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		92.7	30-150				

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIB0254 - EPA 3550A

Matrix Spike (BIB0254-MS1)		Source: 2501374-21			Prepared & Analyzed: 02/06/25					
C10-C28 (DRO)	459	50	mg/kg	500	ND	91.8	70-130			
Surrogate: <i>o</i> -Terphenyl	10.6		"	12.5		84.7	30-150			
Matrix Spike Dup (BIB0254-MSD1)		Source: 2501374-21			Prepared & Analyzed: 02/06/25					
C10-C28 (DRO)	476	50	mg/kg	500	ND	95.2	70-130	3.60	20	
Surrogate: <i>o</i> -Terphenyl	10.7		"	12.5		85.2	30-150			

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BIB0036 - EPA 5030 Soil MS

Blank (BIB0036-BLK1)

Prepared: 02/03/25 Analyzed: 02/09/25

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0285		"	0.0333		85.5	40-140			
<i>Surrogate: Fluoranthene-d10</i>	0.0347		"	0.0333		104	40-140			

LCS (BIB0036-BS1)

Prepared: 02/03/25 Analyzed: 02/09/25

Acenaphthene	0.0291	0.00500	mg/kg	0.0333		87.4	40-140			
Anthracene	0.0264	0.00500	"	0.0333		79.1	40-140			
Benzo (a) anthracene	0.0285	0.00500	"	0.0333		85.5	40-140			
Benzo (a) pyrene	0.0272	0.00500	"	0.0333		81.7	40-140			
Benzo (b) fluoranthene	0.0277	0.00500	"	0.0333		83.2	40-140			
Benzo (k) fluoranthene	0.0275	0.00500	"	0.0333		82.5	40-140			
Chrysene	0.0289	0.00500	"	0.0333		86.6	40-140			
Dibenz (a,h) anthracene	0.0284	0.00500	"	0.0333		85.2	40-140			
Fluoranthene	0.0321	0.00500	"	0.0333		96.2	40-140			
Fluorene	0.0277	0.00500	"	0.0333		83.1	40-140			
Indeno (1,2,3-cd) pyrene	0.0297	0.00500	"	0.0333		89.0	40-140			
Pyrene	0.0325	0.00500	"	0.0333		97.6	40-140			
1-Methylnaphthalene	0.0264	0.00500	"	0.0333		79.3	40-140			
2-Methylnaphthalene	0.0242	0.00500	"	0.0333		72.7	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0259		"	0.0333		77.6	40-140			
<i>Surrogate: Fluoranthene-d10</i>	0.0324		"	0.0333		97.1	40-140			

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIB0036 - EPA 5030 Soil MS

Matrix Spike (BIB0036-MS1)	Source: 2501374-01			Prepared: 02/03/25 Analyzed: 02/09/25					
Acenaphthene	0.0278	0.00500	mg/kg	0.0333	ND	83.4	40-140		
Anthracene	0.0250	0.00500	"	0.0333	ND	74.9	40-140		
Benzo (a) anthracene	0.0272	0.00500	"	0.0333	ND	81.7	40-140		
Benzo (a) pyrene	0.0253	0.00500	"	0.0333	ND	75.9	40-140		
Benzo (b) fluoranthene	0.0265	0.00500	"	0.0333	ND	79.4	40-140		
Benzo (k) fluoranthene	0.0259	0.00500	"	0.0333	ND	77.8	40-140		
Chrysene	0.0272	0.00500	"	0.0333	ND	81.7	40-140		
Dibenz (a,h) anthracene	0.0257	0.00500	"	0.0333	ND	77.1	40-140		
Fluoranthene	0.0314	0.00500	"	0.0333	ND	94.3	40-140		
Fluorene	0.0266	0.00500	"	0.0333	ND	79.9	40-140		
Indeno (1,2,3-cd) pyrene	0.0262	0.00500	"	0.0333	ND	78.7	40-140		
Pyrene	0.0303	0.00500	"	0.0333	ND	90.9	40-140		
1-Methylnaphthalene	0.0249	0.00500	"	0.0333	ND	74.8	40-140		
2-Methylnaphthalene	0.0231	0.00500	"	0.0333	ND	69.4	40-140		
Surrogate: 2-Methylnaphthalene-d10	0.0237		"	0.0333		71.0	40-140		
Surrogate: Fluoranthene-d10	0.0302		"	0.0333		90.7	40-140		

Matrix Spike Dup (BIB0036-MSD1)	Source: 2501374-01			Prepared: 02/03/25 Analyzed: 02/09/25					
Acenaphthene	0.0233	0.00500	mg/kg	0.0333	ND	69.8	40-140	17.8	30
Anthracene	0.0224	0.00500	"	0.0333	ND	67.2	40-140	10.8	30
Benzo (a) anthracene	0.0248	0.00500	"	0.0333	ND	74.3	40-140	9.53	30
Benzo (a) pyrene	0.0226	0.00500	"	0.0333	ND	67.9	40-140	11.1	30
Benzo (b) fluoranthene	0.0235	0.00500	"	0.0333	ND	70.4	40-140	12.0	30
Benzo (k) fluoranthene	0.0235	0.00500	"	0.0333	ND	70.4	40-140	9.91	30
Chrysene	0.0244	0.00500	"	0.0333	ND	73.1	40-140	11.2	30
Dibenz (a,h) anthracene	0.0231	0.00500	"	0.0333	ND	69.4	40-140	10.5	30
Fluoranthene	0.0280	0.00500	"	0.0333	ND	83.9	40-140	11.6	30
Fluorene	0.0229	0.00500	"	0.0333	ND	68.7	40-140	15.1	30
Indeno (1,2,3-cd) pyrene	0.0235	0.00500	"	0.0333	ND	70.5	40-140	10.9	30
Pyrene	0.0254	0.00500	"	0.0333	ND	76.3	40-140	17.4	30
1-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.6	40-140	13.0	30
2-Methylnaphthalene	0.0201	0.00500	"	0.0333	ND	60.4	40-140	13.8	30
Surrogate: 2-Methylnaphthalene-d10	0.0205		"	0.0333		61.5	40-140		
Surrogate: Fluoranthene-d10	0.0266		"	0.0333		79.8	40-140		

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIB0038 - EPA 5030 Soil MS

Blank (BIB0038-BLK1)

Prepared: 02/03/25 Analyzed: 02/05/25

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	0.0221		"	0.0333		66.4	40-140			
Surrogate: Fluoranthene-d10	0.0237		"	0.0333		71.2	40-140			

LCS (BIB0038-BS1)

Prepared: 02/03/25 Analyzed: 02/05/25

Acenaphthene	0.0230	0.00500	mg/kg	0.0333		69.0	40-140			
Anthracene	0.0281	0.00500	"	0.0333		84.2	40-140			
Benzo (a) anthracene	0.0325	0.00500	"	0.0333		97.6	40-140			
Benzo (a) pyrene	0.0307	0.00500	"	0.0333		92.2	40-140			
Benzo (b) fluoranthene	0.0317	0.00500	"	0.0333		95.2	40-140			
Benzo (k) fluoranthene	0.0291	0.00500	"	0.0333		87.3	40-140			
Chrysene	0.0302	0.00500	"	0.0333		90.7	40-140			
Dibenz (a,h) anthracene	0.0288	0.00500	"	0.0333		86.3	40-140			
Fluoranthene	0.0281	0.00500	"	0.0333		84.3	40-140			
Fluorene	0.0231	0.00500	"	0.0333		69.3	40-140			
Indeno (1,2,3-cd) pyrene	0.0225	0.00500	"	0.0333		67.6	40-140			
Pyrene	0.0290	0.00500	"	0.0333		86.9	40-140			
1-Methylnaphthalene	0.0287	0.00500	"	0.0333		86.1	40-140			
2-Methylnaphthalene	0.0323	0.00500	"	0.0333		96.8	40-140			
Surrogate: 2-Methylnaphthalene-d10	0.0314		"	0.0333		94.3	40-140			
Surrogate: Fluoranthene-d10	0.0278		"	0.0333		83.3	40-140			

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIB0038 - EPA 5030 Soil MS

Matrix Spike (BIB0038-MS1)	Source: 2501374-21			Prepared: 02/03/25 Analyzed: 02/05/25						
Acenaphthene	0.0186	0.00500	mg/kg	0.0333	ND	55.7	40-140			
Anthracene	0.0175	0.00500	"	0.0333	ND	52.6	40-140			
Benzo (a) anthracene	0.0182	0.00500	"	0.0333	ND	54.6	40-140			
Benzo (a) pyrene	0.0176	0.00500	"	0.0333	ND	52.8	40-140			
Benzo (b) fluoranthene	0.0164	0.00500	"	0.0333	ND	49.3	40-140			
Benzo (k) fluoranthene	0.0153	0.00500	"	0.0333	ND	45.8	40-140			
Chrysene	0.0166	0.00500	"	0.0333	ND	49.9	40-140			
Dibenz (a,h) anthracene	0.0163	0.00500	"	0.0333	ND	48.9	40-140			
Fluoranthene	0.0171	0.00500	"	0.0333	ND	51.4	40-140			
Fluorene	0.0205	0.00500	"	0.0333	ND	61.6	40-140			
Indeno (1,2,3-cd) pyrene	0.0159	0.00500	"	0.0333	ND	47.6	40-140			
Pyrene	0.0174	0.00500	"	0.0333	ND	52.1	40-140			
1-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.5	40-140			
2-Methylnaphthalene	0.0171	0.00500	"	0.0333	ND	51.4	40-140			
Surrogate: 2-Methylnaphthalene-d10	0.0166		"	0.0333		49.8	40-140			
Surrogate: Fluoranthene-d10	0.0169		"	0.0333		50.7	40-140			

Matrix Spike Dup (BIB0038-MSD1)	Source: 2501374-21			Prepared: 02/03/25 Analyzed: 02/05/25						
Acenaphthene	0.0214	0.00500	mg/kg	0.0333	ND	64.2	40-140	14.2	30	
Anthracene	0.0213	0.00500	"	0.0333	ND	63.9	40-140	19.4	30	
Benzo (a) anthracene	0.0235	0.00500	"	0.0333	ND	70.5	40-140	25.4	30	
Benzo (a) pyrene	0.0227	0.00500	"	0.0333	ND	68.2	40-140	25.5	30	
Benzo (b) fluoranthene	0.0224	0.00500	"	0.0333	ND	67.1	40-140	30.5	30	QR-02
Benzo (k) fluoranthene	0.0207	0.00500	"	0.0333	ND	62.2	40-140	30.3	30	QR-02
Chrysene	0.0219	0.00500	"	0.0333	ND	65.8	40-140	27.5	30	
Dibenz (a,h) anthracene	0.0216	0.00500	"	0.0333	ND	64.8	40-140	27.9	30	
Fluoranthene	0.0213	0.00500	"	0.0333	ND	64.0	40-140	21.8	30	
Fluorene	0.0224	0.00500	"	0.0333	ND	67.1	40-140	8.64	30	
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.7	40-140	4.37	30	
Pyrene	0.0217	0.00500	"	0.0333	ND	65.1	40-140	22.2	30	
1-Methylnaphthalene	0.0214	0.00500	"	0.0333	ND	64.3	40-140	24.0	30	
2-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	40-140	27.1	30	
Surrogate: 2-Methylnaphthalene-d10	0.0218		"	0.0333		65.4	40-140			
Surrogate: Fluoranthene-d10	0.0211		"	0.0333		63.3	40-140			

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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

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

Batch BIB1456 - EPA 3050B

Blank (BIB1456-BLK1)

Prepared: 02/25/25 Analyzed: 03/01/25

Boron ND 2.00 mg/L

LCS (BIB1456-BS1)

Prepared: 02/25/25 Analyzed: 03/01/25

Boron 4.69 2.00 mg/L 5.00 93.9 80-120

Duplicate (BIB1456-DUP1)

Source: 2501372-20

Prepared: 02/25/25 Analyzed: 03/01/25

Boron 1.19 2.00 mg/L 1.16 1.78 20

Matrix Spike (BIB1456-MS1)

Source: 2501372-20

Prepared: 02/25/25 Analyzed: 03/01/25

Boron 5.82 2.00 mg/L 4.99 1.16 93.3 75-125

Matrix Spike Dup (BIB1456-MSD1)

Source: 2501372-20

Prepared: 02/25/25 Analyzed: 03/01/25

Boron 6.07 2.00 mg/L 4.99 1.16 98.4 75-125 4.23 25

Batch BIB1485 - EPA 3050B

Blank (BIB1485-BLK1)

Prepared: 02/26/25 Analyzed: 03/11/25

Boron ND 2.00 mg/L

LCS (BIB1485-BS1)

Prepared: 02/26/25 Analyzed: 03/11/25

Boron 4.48 2.00 mg/L 5.00 89.7 80-120

Duplicate (BIB1485-DUP1)

Source: 2501374-17

Prepared: 02/26/25 Analyzed: 03/11/25

Boron ND 2.00 mg/L ND 20

Matrix Spike (BIB1485-MS1)

Source: 2501374-17

Prepared: 02/26/25 Analyzed: 03/11/25

Boron 4.65 2.00 mg/L 5.00 ND 93.1 75-125

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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

Summit Scientific

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

Batch BIB1485 - EPA 3050B

Matrix Spike Dup (BIB1485-MSD1)

Source: 2501374-17

Prepared: 02/26/25 Analyzed: 03/11/25

Boron	4.40	2.00	mg/L	5.00	ND	87.9	75-125	5.70	25	
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIC0416 - EPA 3050B

Blank (BIC0416-BLK1)

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

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 (BIC0416-BS1)

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

Arsenic	44.4	0.200	mg/kg wet	41.0	108	80-120					
Barium	43.2	0.400	"	41.0	105	80-120					
Cadmium	2.15	0.200	"	2.05	105	80-120					
Copper	43.1	0.400	"	41.0	105	80-120					
Lead	19.6	0.200	"	20.5	95.5	80-120					
Nickel	43.2	0.400	"	41.0	105	80-120					
Silver	2.10	0.0200	"	2.05	102	80-120					
Zinc	40.4	0.400	"	41.0	98.7	80-120					
Selenium	4.11	0.260	"	4.10	100	80-120					

Duplicate (BIC0416-DUP1)

Source: 2501374-01

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

Arsenic	0.815	0.200	mg/kg dry	0.884	8.17	20					
Barium	137	0.400	"	121	12.2	20					
Cadmium	0.367	0.200	"	0.307	17.6	20					
Copper	4.90	0.400	"	4.37	11.4	20					
Lead	17.3	0.200	"	14.0	21.1	20					QR-04
Nickel	1.82	0.400	"	1.83	0.901	20					
Silver	0.275	0.0200	"	0.201	30.9	20					QR-04
Zinc	19.8	0.400	"	21.6	8.71	20					
Selenium	0.192	0.260	"	0.192	0.216	20					

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIC0416 - EPA 3050B

Matrix Spike (BIC0416-MS1)	Source: 2501374-01			Prepared: 03/07/25 Analyzed: 03/25/25								
Arsenic	12.3	0.200	mg/kg dry	45.9	0.884	24.9	75-125					QM-05
Barium	176	0.400	"	45.9	121	120	75-125					
Cadmium	2.66	0.200	"	2.30	0.307	103	75-125					
Copper	15.6	0.400	"	45.9	4.37	24.5	75-125					QM-05
Lead	35.1	0.200	"	23.0	14.0	92.0	75-125					
Nickel	12.9	0.400	"	45.9	1.83	24.1	75-125					QM-05
Silver	2.53	0.0200	"	2.30	0.201	101	75-125					
Zinc	28.6	0.400	"	45.9	21.6	15.2	75-125					QM-05
Selenium	4.12	0.260	"	4.59	0.192	85.4	75-125					

Matrix Spike Dup (BIC0416-MSD1)	Source: 2501374-01			Prepared: 03/07/25 Analyzed: 03/25/25								
Arsenic	11.0	0.200	mg/kg dry	44.1	0.884	22.9	75-125	11.2	25			QM-05
Barium	169	0.400	"	44.1	121	110	75-125	3.86	25			
Cadmium	2.60	0.200	"	2.21	0.307	104	75-125	2.47	25			
Copper	14.3	0.400	"	44.1	4.37	22.4	75-125	9.30	25			QM-05
Lead	34.2	0.200	"	22.1	14.0	91.7	75-125	2.66	25			
Nickel	11.6	0.400	"	44.1	1.83	22.1	75-125	10.7	25			QM-05
Silver	2.49	0.0200	"	2.21	0.201	104	75-125	1.59	25			
Zinc	28.4	0.400	"	44.1	21.6	15.3	75-125	0.958	25			QM-05
Selenium	3.86	0.260	"	4.41	0.192	83.1	75-125	6.53	25			

Batch BIC0417 - EPA 3050B

Blank (BIC0417-BLK1)	Prepared: 03/07/25 Analyzed: 03/25/25											
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	"									

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIC0417 - EPA 3050B

LCS (BIC0417-BS1)

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

Arsenic	43.5	0.200	mg/kg wet	40.7		107	80-120			
Barium	39.1	0.400	"	40.7		96.1	80-120			
Cadmium	2.05	0.200	"	2.03		101	80-120			
Copper	44.3	0.400	"	40.7		109	80-120			
Lead	20.1	0.200	"	20.3		98.9	80-120			
Nickel	45.4	0.400	"	40.7		112	80-120			
Silver	2.06	0.0200	"	2.03		101	80-120			
Zinc	45.1	0.400	"	40.7		111	80-120			
Selenium	4.58	0.260	"	4.07		113	80-120			

Duplicate (BIC0417-DUP1)

Source: 2501374-20

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

Arsenic	2.50	0.200	mg/kg dry		2.96			16.8	20	
Barium	177	0.400	"		226			24.6	20	QR-04
Cadmium	0.234	0.200	"		0.296			23.6	20	QR-04
Copper	5.04	0.400	"		5.92			16.2	20	
Lead	6.73	0.200	"		8.21			19.8	20	
Nickel	4.16	0.400	"		4.71			12.4	20	
Silver	0.0173	0.0200	"		0.0228			27.3	20	QR-01
Zinc	23.7	0.400	"		28.8			19.2	20	
Selenium	ND	0.260	"		0.176			200	20	QR-01

Matrix Spike (BIC0417-MS1)

Source: 2501374-20

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

Arsenic	32.8	0.200	mg/kg dry	48.1	2.96	62.0	75-125			QM-05
Barium	267	0.400	"	48.1	226	85.4	75-125			
Cadmium	2.68	0.200	"	2.41	0.296	99.1	75-125			
Copper	34.6	0.400	"	48.1	5.92	59.7	75-125			QM-05
Lead	30.1	0.200	"	24.1	8.21	91.0	75-125			
Nickel	35.1	0.400	"	48.1	4.71	63.2	75-125			QM-05
Silver	2.37	0.0200	"	2.41	0.0228	97.7	75-125			
Zinc	56.0	0.400	"	48.1	28.8	56.6	75-125			QM-05
Selenium	5.40	0.260	"	4.81	0.176	109	75-125			

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIC0417 - EPA 3050B

Matrix Spike Dup (BIC0417-MSD1)	Source: 2501374-20			Prepared: 03/07/25		Analyzed: 03/25/25					
Arsenic	33.3	0.200	mg/kg dry	46.6	2.96	65.1	75-125	1.40	25		QM-05
Barium	293	0.400	"	46.6	226	144	75-125	9.26	25		QM-05
Cadmium	2.83	0.200	"	2.33	0.296	109	75-125	5.44	25		
Copper	35.2	0.400	"	46.6	5.92	62.8	75-125	1.44	25		QM-05
Lead	31.5	0.200	"	23.3	8.21	100	75-125	4.66	25		
Nickel	35.6	0.400	"	46.6	4.71	66.4	75-125	1.38	25		QM-05
Silver	2.49	0.0200	"	2.33	0.0228	106	75-125	4.90	25		
Zinc	57.2	0.400	"	46.6	28.8	61.1	75-125	2.22	25		QM-05
Selenium	5.42	0.260	"	4.66	0.176	113	75-125	0.379	25		

Summit Scientific

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

Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BIB0406 - 3060A Mod

Blank (BIB0406-BLK1)

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIB0406-BS1)

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent 22.7 0.30 mg/kg wet 25.0 90.8 80-120

Duplicate (BIB0406-DUP1)

Source: 2501372-01

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIB0406-MS1)

Source: 2501372-01

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent 25.8 0.30 mg/kg dry 27.9 ND 92.6 75-125

Matrix Spike Dup (BIB0406-MSD1)

Source: 2501372-01

Prepared & Analyzed: 02/08/25

Chromium, Hexavalent 26.0 0.30 mg/kg dry 27.9 ND 93.2 75-125 0.646 20

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Project Number: [none]
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Reported:
04/02/25 08:59

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

Summit Scientific

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

Batch BIB0788 - General Preparation

Blank (BIB0788-BLK1)

Prepared: 02/14/25 Analyzed: 02/24/25

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

LCS (BIB0788-BS1)

Prepared: 02/14/25 Analyzed: 02/24/25

Calcium	4.72	0.0500	mg/L wet	5.00	94.5	70-130
Magnesium	5.20	0.0500	"	5.00	104	70-130
Sodium	4.90	0.0500	"	5.00	98.0	70-130

Batch BIB0791 - General Preparation

Blank (BIB0791-BLK1)

Prepared: 02/14/25 Analyzed: 02/26/25

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

LCS (BIB0791-BS1)

Prepared: 02/14/25 Analyzed: 02/26/25

Calcium	5.03	0.0500	mg/L wet	5.00	101	70-130
Magnesium	4.89	0.0500	"	5.00	97.7	70-130
Sodium	4.79	0.0500	"	5.00	95.8	70-130

Summit Scientific

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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

Summit Scientific

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

Batch BIB0460 - General Preparation

Duplicate (BIB0460-DUP1)	Source: 2501374-01			Prepared: 02/10/25 Analyzed: 02/11/25	
% Solids	88.2		%	90.7	2.80 20

Batch BIB0494 - General Preparation

Duplicate (BIB0494-DUP1)	Source: 2501374-31			Prepared: 02/10/25 Analyzed: 02/12/25	
% Solids	84.1		%	83.5	0.679 20

Summit Scientific

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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			Limits	RPD	Limit		

Batch BIB0789 - General Preparation

Blank (BIB0789-BLK1)

Prepared: 02/14/25 Analyzed: 02/19/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIB0789-BS1)

Prepared: 02/14/25 Analyzed: 02/19/25

Specific Conductance (EC) 1.39 0.0100 mmhos/cm 1.41 98.3 95-105

Duplicate (BIB0789-DUP1)

Source: 2501339-01

Prepared: 02/14/25 Analyzed: 02/19/25

Specific Conductance (EC) 0.883 0.0100 mmhos/cm 0.885 0.223 20

Batch BIB0793 - General Preparation

Blank (BIB0793-BLK1)

Prepared: 02/14/25 Analyzed: 02/19/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIB0793-BS1)

Prepared: 02/14/25 Analyzed: 02/19/25

Specific Conductance (EC) 1.39 0.0100 mmhos/cm 1.41 98.8 95-105

Duplicate (BIB0793-DUP1)

Source: 2501374-01

Prepared: 02/14/25 Analyzed: 02/19/25

Specific Conductance (EC) 0.774 0.0100 mmhos/cm 0.776 0.259 20

Summit Scientific

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

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 BIB0790 - General Preparation

LCS (BIB0790-BS1)		Prepared: 02/14/25 Analyzed: 02/19/25								
pH	9.13		pH Units	9.18		99.4	95-105			
Duplicate (BIB0790-DUP1)		Source: 2501339-01		Prepared: 02/14/25 Analyzed: 02/19/25						
pH	7.86		pH Units		7.80			0.809	20	

Batch BIB0792 - General Preparation

LCS (BIB0792-BS1)		Prepared: 02/14/25 Analyzed: 02/19/25								
pH	9.07		pH Units	9.18		98.8	95-105			
Duplicate (BIB0792-DUP1)		Source: 2501374-01		Prepared: 02/14/25 Analyzed: 02/19/25						
pH	8.00		pH Units		8.05			0.563	20	

Summit Scientific

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Project: PDC - Miller GJ 33-24 Tank Battery

Project Number: [none]
Project Manager: Bryce Goldade

Reported:
04/02/25 08:59

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values. Only applies to source/DUP and MS/MSD pairs.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample 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