

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 14, 2024

AJ Engelhardt

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Chevron - Spike State CC30-18

Work Order #2410128

Enclosed are the results of analyses for samples received by Summit Scientific on 10/08/24 17:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is fluid and cursive, with the first name being more prominent.

Natalie Tessier For Paul Shrewsbury
President



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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

ANALYTICAL REPORT FOR SAMPLES

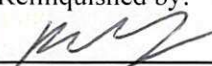
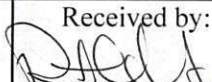
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01R-W@3'	2410128-01	Soil	10/08/24 08:00	10/08/24 17:47
FL01-03@3'	2410128-02	Soil	10/08/24 08:11	10/08/24 17:47
FL02-01@3'	2410128-03	Soil	10/08/24 08:13	10/08/24 17:47
FL01-08@4'	2410128-04	Soil	10/08/24 10:03	10/08/24 17:47
FL02-06@4'	2410128-05	Soil	10/08/24 10:05	10/08/24 17:47
FL01-09@3'	2410128-06	Soil	10/08/24 09:00	10/08/24 17:47
FL02-07@3'	2410128-07	Soil	10/08/24 09:03	10/08/24 17:47
FL01-10@4'	2410128-08	Soil	10/08/24 09:08	10/08/24 17:47
FL02-08@4'	2410128-09	Soil	10/08/24 09:11	10/08/24 17:47
FL01-11@3'	2410128-10	Soil	10/08/24 09:14	10/08/24 17:47
FL02-09@3'	2410128-11	Soil	10/08/24 09:16	10/08/24 17:47
FL01R-S@3'	2410128-12	Soil	10/08/24 11:28	10/08/24 17:47
FL02R-S@3'	2410128-13	Soil	10/08/24 11:34	10/08/24 17:47
BKG01@2'	2410128-14	Soil	10/08/24 11:00	10/08/24 17:47
BKG01@3'	2410128-15	Soil	10/08/24 11:04	10/08/24 17:47
BKG01@4'	2410128-16	Soil	10/08/24 11:06	10/08/24 17:47

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.

Client: Chevron/Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W. 119th Avenue		Project Manager: AJ Engelhardt		Company: Chevron	
City/State/Zip: Broomfield, CO 80020		E-Mail: tas-chevron-3@tasman-geo.com		Project Name/Location: Spike State CC30-18	
Phone:		Project Name: Spike State CC30-18		AFE#: UWRWE-A2065-ABN	
Sampler Name: Ryan Javinsky		Project Number:		PO/Billing Codes:	
				Contact: Miguel Barron	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	915-VOC	915-PAH	915-TPH	pH, EC, SAR	Boron	915-Metals	
1	FL01R-W e 3'	10/8/24	0800	3			3			X			X	X	X	X	X	X	
2	FL01-03 e 3'		0811																
3	FL02-01 e 3'		0813																
4	FL01-08 e 4'		1003																
5	FL02-06 e 4'		1005																
6	FL01-09 e 3'		0900																
7	FL02-07 e 3'		0903																
8	FL01-10 e 4'		0908																
9	FL02-08 e 4'		0911																
10	FL01-11 e 3'		0914																
11	FL02-09 e 3'		0916																
12	FL01R-S e 3'		1128																
13	FL02R-S e 3'		1134																
14	BK601 e 2'		1100																
15	BK601 e 3'		1104																

Relinquished by: 	Date/Time: 10/8/24 1320	Received by: Tasman Lockbox	Date/Time: 10/8/24 1320	TAT Business Days	Field DO	Notes:
Relinquished by: Tasman Lockbox	Date/Time: 10/8/24 1747	Received by: 	Date/Time: 10/8/24 1747	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 5.2	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:	Standard	X Field Turb.	

Client: Chevron/Tasman				Send Data To:				Send Invoice To:														
Address: 6855 W. 119th Avenue				Project Manager: AJ Engelhardt				Company: Chevron														
City/State/Zip: Broomfield, CO 80020				E-Mail: tas-chevtron-3@tasman-geo.com				Project Name/Location: Spike State CC30-18														
Phone:				Project Name: Spike State CC30-18				AFE#: UWRWE-13065-ABN														
Sampler Name: Ryan Yonnsky				Project Number:				PO/Billing Codes:														
Contact: Miguel Barron																						
				Preservative				Matrix				Analysis Requested				Special Instructions						
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	915-VOC	915-PAH	915-TPH	pH, EC, SAR	Boron	915-Metals				
1	BK601e4	10/8/24	1106	3			3			X						X	X	X				
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by:	Date/Time:	Received by:	Date/Time:	TAT Business Days	Field DO	Notes:
<i>[Signature]</i>	10/8/24 1320	Tasman CC30-18	10/8/24 1320	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
<i>Tasman CC30-18</i>	10/8/24 1747	<i>[Signature]</i>	10/8/24 1747	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 8.2		Corrected Temperature: 8		IR gun #:	HNO3 lot #:	

S₂

2/2

Sample Receipt Checklist

S2 Work Order# 2410128Client: Chevron/Tasman Client Project ID: Spike State CC 30-18Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☐ ☒ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 8.2 Thermometer # 1

	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.	☒	☐	☐	m2UE
If custody seals are present, are they intact? ⁽¹⁾	☒	☐	☐	
Are samples due within 48 hours present?	☐	☒	☐	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	☐	☒	☐	
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⁾	☒	☐	☐	
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 samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	☐	☐	☒	
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?	☐	☐	☒	

Additional Comments (if any):

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

10/8/24
Date/Time



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Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01R-W@3'
2410128-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0431	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0414	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0415	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	11.3	90.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Reported:
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FL01R-W@3'
2410128-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0169	50.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0195	58.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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FL01R-W@3'
2410128-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.69	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	54.4	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.05	0.400	"	"	"	"	"	"
Lead	23.1	0.200	"	"	"	"	"	"
Nickel	3.47	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	15.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.6	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	5.39	0.0500	"	"	"	"	"	"	
Sodium	4.17	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.183	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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2410128-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.7		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.210	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 08:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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FL01-03@3'
2410128-02 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.045	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0461	115 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0433	108 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.1	105 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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2410128-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	0.0114	0.00500	mg/kg	1	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	0.0206	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0227	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0136	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0213	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00761	0.00500	"	"	"	"	"	"	
Chrysene	0.0216	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0596	0.00500	"	"	"	"	"	"	
Fluorene	0.0146	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.00770	0.00500	"	"	"	"	"	"	
Pyrene	0.0461	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0196	58.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0215	64.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.10	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	

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Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-03@3'
2410128-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	31.7	0.400	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.45	0.400	"	"	"	"	"	"
Lead	3.06	0.200	"	"	"	"	"	"
Nickel	2.33	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	10.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	75.7	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	15.7	0.0500	"	"	"	"	"	"	
Sodium	0.931	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0254	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 08:11**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-03@3'
2410128-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	94.0	%	1	BHJ0326	10/09/24	10/09/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0577	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 08:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.01		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-01@3'
2410128-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.069	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0400	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0414	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	16.3	131 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
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Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-01@3'
2410128-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	0.233	0.0500	mg/kg	10	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	1.71	0.0500	"	"	"	"	"	"	
Benzo (a) anthracene	0.616	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	0.313	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.491	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.234	0.0500	"	"	"	"	"	"	
Chrysene	0.823	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.0436	0.00500	"	1	"	"	10/10/24	"	
Fluoranthene	1.68	0.0500	"	10	"	"	10/10/24	"	
Fluorene	0.383	0.0500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.191	0.0500	"	"	"	"	"	"	
Pyrene	1.39	0.0500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0184	0.00500	"	1	"	"	10/10/24	"	
2-Methylnaphthalene	0.0406	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0187	56.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0214	64.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.20	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-01@3'
2410128-03 (Soil)

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Total Metals by EPA 6020B

Barium	26.6	0.400	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.57	0.400	"	"	"	"	"	"
Lead	3.15	0.200	"	"	"	"	"	"
Nickel	2.27	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	10.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	53.6	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	10.4	0.0500	"	"	"	"	"	"	
Sodium	0.795	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0260	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 08:13**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-01@3'
2410128-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	96.8	%	1	BHJ0326	10/09/24	10/09/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0534	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 08:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.44		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-08@4'
2410128-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.015	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0462	115 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0420	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	17.1	137 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-08@4'
2410128-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	0.0556	0.00500	mg/kg	1	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	0.0754	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.115	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0751	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.120	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.0426	0.00500	"	"	"	"	"	"	
Chrysene	0.104	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	0.00802	0.00500	"	"	"	"	"	"	
Fluoranthene	0.282	0.00500	"	"	"	"	"	"	E
Fluorene	0.0668	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0397	0.00500	"	"	"	"	"	"	
Pyrene	0.221	0.00500	"	"	"	"	"	"	E
1-Methylnaphthalene	0.00740	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0142	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0192	57.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0219	65.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.41	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-08@4'
2410128-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	36.9	0.400	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.09	0.400	"	"	"	"	"	"
Lead	4.06	0.200	"	"	"	"	"	"
Nickel	2.99	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	13.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	72.6	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	16.1	0.0500	"	"	"	"	"	"	
Sodium	1.00	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0277	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-08@4'
2410128-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	96.5	%	1	BHJ0326	10/09/24	10/09/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0450	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.11		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-06@4'
2410128-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0412	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0423	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	17.3	139 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-06@4'
2410128-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	0.00665	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0161	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0101	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0171	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00583	0.00500	"	"	"	"	"	"	
Chrysene	0.0148	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0451	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.00504	0.00500	"	"	"	"	"	"	
Pyrene	0.0352	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0208	62.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0236	70.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 10:05**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-06@4'
2410128-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.49	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	41.2	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.22	0.400	"	"	"	"	"	"
Lead	3.90	0.200	"	"	"	"	"	"
Nickel	3.37	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	15.0	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.3	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	19.0	0.0500	"	"	"	"	"	"	
Sodium	1.74	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0456	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-06@4'
2410128-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.1		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0422	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.33		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-09@3'
2410128-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0434	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0417	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.4	115 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-09@3'
2410128-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0215	64.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0243	72.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 09:00**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-09@3'
2410128-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.24	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	33.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	3.04	0.400	"	"	"	"	"	"
Lead	4.29	0.200	"	"	"	"	"	"
Nickel	2.66	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	60.9	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	14.0	0.0500	"	"	"	"	"	"	
Sodium	0.950	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0285	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-09@3'
2410128-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.4		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0998	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.62		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-07@3'
2410128-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.0039	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0402	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.8	110 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-07@3'
2410128-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0144	0.00500	mg/kg	1	BHJ0323	10/09/24	10/10/24	EPA 8270D SIM	
Anthracene	0.0564	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0261	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0151	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0233	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00894	0.00500	"	"	"	"	"	"	
Chrysene	0.0320	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0690	0.00500	"	"	"	"	"	"	
Fluorene	0.0182	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.00689	0.00500	"	"	"	"	"	"	
Pyrene	0.0553	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0202	60.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.21	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-07@3'
2410128-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	34.9	0.400	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.91	0.400	"	"	"	"	"	"
Lead	3.66	0.200	"	"	"	"	"	"
Nickel	2.66	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	76.1	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	17.0	0.0500	"	"	"	"	"	"	
Sodium	1.10	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0297	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 09:03**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-07@3'
2410128-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	94.6	%	1	BHJ0326	10/09/24	10/09/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0776	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 09:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.18		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-10@4'
2410128-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0491	123 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0421	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0424	106 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	16.3	130 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-10@4'
2410128-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/11/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.00644	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0233	69.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0259	77.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 09:08**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-10@4'
2410128-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.73	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	32.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.63	0.400	"	"	"	"	"	"
Lead	3.16	0.200	"	"	"	"	"	"
Nickel	2.89	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	11.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	28.3	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	6.33	0.0500	"	"	"	"	"	"	
Sodium	0.734	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0325	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-10@4'
2410128-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.1		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0217	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 09:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.37		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-08@4'
2410128-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.14	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0424	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0414	104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	100	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	18.2	146 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-08@4'
2410128-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Acenaphthene	0.426	0.00500	mg/kg	1	BHJ0323	10/09/24	10/11/24	EPA 8270D SIM	E
Anthracene	0.741	0.00500	"	"	"	"	"	"	E
Benzo (a) anthracene	1.47	0.00500	"	"	"	"	"	"	E
Benzo (a) pyrene	1.14	0.00500	"	"	"	"	"	"	E
Benzo (b) fluoranthene	1.89	0.00500	"	"	"	"	"	"	E
Benzo (k) fluoranthene	0.675	0.00500	"	"	"	"	"	"	E
Chrysene	1.39	0.00500	"	"	"	"	"	"	E
Dibenz (a,h) anthracene	0.141	0.00500	"	"	"	"	"	"	E
Fluoranthene	2.05	0.00500	"	"	"	"	"	"	E
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.620	0.00500	"	"	"	"	"	"	E
Pyrene	2.46	0.00500	"	"	"	"	"	"	E
1-Methylnaphthalene	0.0398	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0695	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 2-Methylnaphthalene-d10	0.0235	70.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0233	69.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.16	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-08@4'
2410128-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	31.9	0.400	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.47	0.400	"	"	"	"	"	"
Lead	3.27	0.200	"	"	"	"	"	"
Nickel	2.55	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	10.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.5	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	8.57	0.0500	"	"	"	"	"	"	
Sodium	1.23	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0463	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 09:11**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-08@4'
2410128-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.2	%	1	BHJ0326	10/09/24	10/09/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0346	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 09:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.03		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-11@3'
2410128-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0399	99.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.4	123 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-11@3'
2410128-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/11/24	EPA 8270D SIM	
Anthracene	0.00711	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0111	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.00661	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0127	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.0108	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0282	0.00500	"	"	"	"	"	"	
Fluorene	0.00589	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.0222	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0222	66.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0250	74.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 09:14**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-11@3'
2410128-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.28	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	36.1	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.89	0.400	"	"	"	"	"	"
Lead	4.22	0.200	"	"	"	"	"	"
Nickel	2.93	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	12.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.0	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	5.28	0.0500	"	"	"	"	"	"	
Sodium	0.629	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0294	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01-11@3'
2410128-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.6			%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0595	0.0100		mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 09:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	6.71			pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-09@3'
2410128-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/09/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0416	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0423	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0407	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	16.0	128 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-09@3'
2410128-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.00685	0.00500	mg/kg	1	BHJ0323	10/09/24	10/11/24	EPA 8270D SIM	
Anthracene	0.0244	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0164	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.00888	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0151	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00523	0.00500	"	"	"	"	"	"	
Chrysene	0.0176	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0456	0.00500	"	"	"	"	"	"	
Fluorene	0.00899	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.00627	0.00500	"	"	"	"	"	"	
Pyrene	0.0367	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0242	72.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0255	76.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.980	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-09@3'
2410128-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	33.4	0.400	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.40	0.400	"	"	"	"	"	"
Lead	3.15	0.200	"	"	"	"	"	"
Nickel	2.34	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	10.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.5	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	9.79	0.0500	"	"	"	"	"	"	
Sodium	0.874	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0304	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 09:16**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02-09@3'
2410128-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	97.4	%	1	BHJ0326	10/09/24	10/09/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0331	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 09:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.06		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01R-S@3'
2410128-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/10/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0416	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.92	79.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01R-S@3'
2410128-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/11/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0224	67.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0240	72.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 11:28**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01R-S@3'
2410128-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.47	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	34.7	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.79	0.400	"	"	"	"	"	"
Lead	3.83	0.200	"	"	"	"	"	"
Nickel	2.54	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	11.9	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	89.0	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	21.0	0.0500	"	"	"	"	"	"	
Sodium	1.41	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0349	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL01R-S@3'
2410128-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.1		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0442	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 11:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.46		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02R-S@3'
2410128-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BHJ0344	10/09/24	10/10/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0436	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BHJ0347	10/09/24	10/10/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.50	76.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02R-S@3'
2410128-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0323	10/09/24	10/11/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0180	53.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0194	58.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 11:34**

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: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02R-S@3'
2410128-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.25	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B
Barium	34.8	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.88	0.400	"	"	"	"	"	"
Lead	4.45	0.200	"	"	"	"	"	"
Nickel	2.79	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	13.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	135	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	30.9	0.0500	"	"	"	"	"	"	
Sodium	0.816	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0165	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

FL02R-S@3'
2410128-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.3		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0637	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 11:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.42		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

BKG01@2'
2410128-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.21	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	
Barium	37.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.02	0.400	"	"	"	"	"	"	
Lead	3.58	0.200	"	"	"	"	"	"	
Nickel	2.96	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	13.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	16.6	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	3.42	0.0500	"	"	"	"	"	"	
Sodium	0.677	0.0500	"	"	"	"	"	"	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

BKG01@2'
2410128-14 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0395	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.3		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0291	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.14		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

BKG01@3'
2410128-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.10	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	
Barium	34.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.65	0.400	"	"	"	"	"	"	
Lead	3.24	0.200	"	"	"	"	"	"	
Nickel	2.54	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	20.9	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	4.44	0.0500	"	"	"	"	"	"	
Sodium	0.751	0.0500	"	"	"	"	"	"	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

BKG01@3'
2410128-15 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0389	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.2		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0217	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.35		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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Broomfield CO, 80020

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

BKG01@4'
2410128-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BHJ0327	10/09/24	10/10/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.04	0.200	mg/kg dry	1	BHJ0337	10/09/24	10/10/24	EPA 6020B	
Barium	32.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.65	0.400	"	"	"	"	"	"	
Lead	3.11	0.200	"	"	"	"	"	"	
Nickel	2.52	0.400	"	"	"	"	"	"	
Silver	0.0232	0.0200	"	"	"	"	"	"	
Zinc	11.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ0325	10/09/24	10/09/24	EPA 7196A	

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

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	24.8	0.0500	mg/L dry	1	BHJ0339	10/09/24	10/11/24	EPA 6020B	
Magnesium	5.14	0.0500	"	"	"	"	"	"	
Sodium	1.26	0.0500	"	"	"	"	"	"	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

BKG01@4'
2410128-16 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0601	0.00100	units	1	BHJ0490	10/14/24	10/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	98.2		%	1	BHJ0326	10/09/24	10/09/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0284	0.0100	mmhos/cm	1	BHJ0341	10/09/24	10/10/24	EPA 120.1	

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

Date Sampled: **10/08/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.33		pH Units	1	BHJ0340	10/09/24	10/10/24	EPA 9045D	

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHJ0344 - EPA 5030 Soil MS

Blank (BHJ0344-BLK1)

Prepared & Analyzed: 10/09/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0414		"	0.0400		104	50-150			

LCS (BHJ0344-BS1)

Prepared & Analyzed: 10/09/24

Benzene	0.110	0.0020	mg/kg	0.100		110	70-130			
Toluene	0.119	0.0050	"	0.100		119	70-130			
Ethylbenzene	0.121	0.0050	"	0.100		121	70-130			
m,p-Xylene	0.236	0.010	"	0.200		118	70-130			
o-Xylene	0.113	0.0050	"	0.100		113	70-130			
1,2,4-Trimethylbenzene	0.112	0.0050	"	0.100		112	70-130			
1,3,5-Trimethylbenzene	0.115	0.0050	"	0.100		115	70-130			
Naphthalene	0.0878	0.0038	"	0.100		87.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0419		"	0.0400		105	50-150			

Matrix Spike (BHJ0344-MS1)

Source: 2410128-02

Prepared & Analyzed: 10/09/24

Benzene	0.114	0.0020	mg/kg	0.100	ND	114	70-130			
Toluene	0.117	0.0050	"	0.100	ND	117	70-130			
Ethylbenzene	0.119	0.0050	"	0.100	ND	119	70-130			
m,p-Xylene	0.228	0.010	"	0.200	ND	114	70-130			
o-Xylene	0.109	0.0050	"	0.100	ND	109	70-130			
1,2,4-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130			
1,3,5-Trimethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130			
Naphthalene	0.133	0.0038	"	0.100	0.0451	88.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0435		"	0.0400		109	50-150			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	50-150			

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

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

Batch BHJ0344 - EPA 5030 Soil MS

Matrix Spike Dup (BHJ0344-MSD1)		Source: 2410128-02			Prepared & Analyzed: 10/09/24					
Benzene	0.113	0.0020	mg/kg	0.100	ND	113	70-130	0.291	30	
Toluene	0.117	0.0050	"	0.100	ND	117	70-130	0.462	30	
Ethylbenzene	0.119	0.0050	"	0.100	ND	119	70-130	0.202	30	
m,p-Xylene	0.228	0.010	"	0.200	ND	114	70-130	0.0395	30	
o-Xylene	0.110	0.0050	"	0.100	ND	110	70-130	0.412	30	
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130	1.74	30	
1,3,5-Trimethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130	1.48	30	
Naphthalene	0.132	0.0038	"	0.100	0.0451	87.2	70-130	0.791	30	
Surrogate: 1,2-Dichloroethane-d4	0.0454		"	0.0400		114	50-150			
Surrogate: Toluene-d8	0.0410		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	50-150			

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHJ0347 - EPA 3550A

Blank (BHJ0347-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	11.2		"	12.5		89.2	30-150			

LCS (BHJ0347-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	418	50	mg/kg	500		83.7	70-130			
Surrogate: o-Terphenyl	11.0		"	12.5		87.6	30-150			

Matrix Spike (BHJ0347-MS1)

Source: 2410128-01

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	417	50	mg/kg	500	ND	83.4	70-130			
Surrogate: o-Terphenyl	15.0		"	12.5		120	30-150			

Matrix Spike Dup (BHJ0347-MSD1)

Source: 2410128-01

Prepared: 10/09/24 Analyzed: 10/10/24

C10-C28 (DRO)	420	50	mg/kg	500	ND	83.9	70-130	0.642	20	
Surrogate: o-Terphenyl	10.7		"	12.5		85.5	30-150			

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0323 - EPA 5030 Soil MS

Blank (BHJ0323-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0185		"	0.0333		55.4		40-150			
Surrogate: Fluoranthene-d10	0.0236		"	0.0333		70.9		40-150			

LCS (BHJ0323-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

Acenaphthene	0.0196	0.00500	mg/kg	0.0333		58.8		31-137			
Anthracene	0.0215	0.00500	"	0.0333		64.5		30-120			
Benzo (a) anthracene	0.0229	0.00500	"	0.0333		68.7		30-120			
Benzo (a) pyrene	0.0210	0.00500	"	0.0333		63.0		30-120			
Benzo (b) fluoranthene	0.0220	0.00500	"	0.0333		66.0		30-120			
Benzo (k) fluoranthene	0.0214	0.00500	"	0.0333		64.1		30-120			
Chrysene	0.0219	0.00500	"	0.0333		65.6		30-120			
Dibenz (a,h) anthracene	0.0174	0.00500	"	0.0333		52.2		30-120			
Fluoranthene	0.0227	0.00500	"	0.0333		68.0		30-120			
Fluorene	0.0193	0.00500	"	0.0333		58.0		30-120			
Indeno (1,2,3-cd) pyrene	0.0221	0.00500	"	0.0333		66.3		30-120			
Pyrene	0.0225	0.00500	"	0.0333		67.5		35-142			
1-Methylnaphthalene	0.0172	0.00500	"	0.0333		51.7		35-142			
2-Methylnaphthalene	0.0166	0.00500	"	0.0333		49.7		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0171		"	0.0333		51.2		40-150			
Surrogate: Fluoranthene-d10	0.0230		"	0.0333		69.0		40-150			

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0323 - EPA 5030 Soil MS

Matrix Spike (BHJ0323-MS1)

Source: 2410127-01

Prepared: 10/09/24 Analyzed: 10/10/24

Acenaphthene	0.0135	0.00500	mg/kg	0.0333	ND	40.5	31-137				
Anthracene	0.0141	0.00500	"	0.0333	ND	42.4	30-120				
Benzo (a) anthracene	0.0147	0.00500	"	0.0333	ND	44.2	30-120				
Benzo (a) pyrene	0.0136	0.00500	"	0.0333	ND	40.7	30-120				
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.0	30-120				
Benzo (k) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.4	30-120				
Chrysene	0.0140	0.00500	"	0.0333	ND	41.9	30-120				
Dibenz (a,h) anthracene	0.0136	0.00500	"	0.0333	ND	40.7	30-120				
Fluoranthene	0.0139	0.00500	"	0.0333	ND	41.7	30-120				
Fluorene	0.0152	0.00500	"	0.0333	ND	45.7	30-120				
Indeno (1,2,3-cd) pyrene	0.0144	0.00500	"	0.0333	ND	43.2	30-120				
Pyrene	0.0145	0.00500	"	0.0333	ND	43.4	35-142				
1-Methylnaphthalene	0.0149	0.00500	"	0.0333	ND	44.6	15-130				
2-Methylnaphthalene	0.0157	0.00500	"	0.0333	ND	47.1	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0145		"	0.0333		43.4	40-150				
Surrogate: Fluoranthene-d10	0.0141		"	0.0333		42.3	40-150				

Matrix Spike Dup (BHJ0323-MSD1)

Source: 2410127-01

Prepared: 10/09/24 Analyzed: 10/10/24

Acenaphthene	0.0135	0.00500	mg/kg	0.0333	ND	40.6	31-137	0.0839	30
Anthracene	0.0142	0.00500	"	0.0333	ND	42.6	30-120	0.492	30
Benzo (a) anthracene	0.0146	0.00500	"	0.0333	ND	43.9	30-120	0.704	30
Benzo (a) pyrene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	0.884	30
Benzo (b) fluoranthene	0.0139	0.00500	"	0.0333	ND	41.6	30-120	1.66	30
Benzo (k) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.5	30-120	0.119	30
Chrysene	0.0140	0.00500	"	0.0333	ND	41.9	30-120	0.0478	30
Dibenz (a,h) anthracene	0.0146	0.00500	"	0.0333	ND	43.9	30-120	7.61	30
Fluoranthene	0.0142	0.00500	"	0.0333	ND	42.7	30-120	2.43	30
Fluorene	0.0134	0.00500	"	0.0333	ND	40.2	30-120	12.8	30
Indeno (1,2,3-cd) pyrene	0.0152	0.00500	"	0.0333	ND	45.6	30-120	5.41	30
Pyrene	0.0147	0.00500	"	0.0333	ND	44.0	35-142	1.37	30
1-Methylnaphthalene	0.0148	0.00500	"	0.0333	ND	44.5	15-130	0.211	50
2-Methylnaphthalene	0.0159	0.00500	"	0.0333	ND	47.7	15-130	1.27	50
Surrogate: 2-Methylnaphthalene-d10	0.0151		"	0.0333		45.4	40-150		
Surrogate: Fluoranthene-d10	0.0145		"	0.0333		43.5	40-150		

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

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

Batch BHJ0327 - EPA 3050B

Blank (BHJ0327-BLK1)

Prepared & Analyzed: 10/09/24

Boron ND 2.00 mg/L

LCS (BHJ0327-BS1)

Prepared & Analyzed: 10/09/24

Boron 4.97 2.00 mg/L 5.00 99.5 80-120

Duplicate (BHJ0327-DUP1)

Source: 2410128-01

Prepared & Analyzed: 10/09/24

Boron 0.262 2.00 mg/L 0.158 49.6 20 QR-01

Matrix Spike (BHJ0327-MS1)

Source: 2410128-01

Prepared & Analyzed: 10/09/24

Boron 5.04 2.00 mg/L 4.99 0.158 97.8 75-125

Matrix Spike Dup (BHJ0327-MSD1)

Source: 2410128-01

Prepared & Analyzed: 10/09/24

Boron 5.10 2.00 mg/L 4.99 0.158 99.1 75-125 1.28 25

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHJ0337 - EPA 3050B

Blank (BHJ0337-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

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

LCS (BHJ0337-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

Arsenic	37.3	0.200	mg/kg wet	40.0	93.2	80-120
Barium	39.8	0.400	"	40.0	99.5	80-120
Cadmium	1.96	0.200	"	2.00	98.2	80-120
Copper	37.5	0.400	"	40.0	93.7	80-120
Lead	19.7	0.200	"	20.0	98.5	80-120
Nickel	37.1	0.400	"	40.0	92.6	80-120
Silver	1.95	0.0200	"	2.00	97.7	80-120
Zinc	37.1	0.400	"	40.0	92.7	80-120
Selenium	3.74	0.260	"	4.00	93.4	80-120

Duplicate (BHJ0337-DUP1)

Source: 2410128-01

Prepared: 10/09/24 Analyzed: 10/10/24

Arsenic	1.56	0.200	mg/kg dry	1.69	7.61	20	
Barium	47.0	0.400	"	54.4	14.6	20	
Cadmium	0.0909	0.200	"	0.112	20.6	20	QR-01
Copper	3.14	0.400	"	5.05	46.6	20	QR-01
Lead	10.8	0.200	"	23.1	72.8	20	QR-02
Nickel	3.30	0.400	"	3.47	5.05	20	
Silver	0.0171	0.0200	"	0.0179	4.88	20	
Zinc	14.3	0.400	"	15.7	9.69	20	
Selenium	ND	0.260	"	ND		20	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHJ0337 - EPA 3050B

Matrix Spike (BHJ0337-MS1)		Source: 2410128-01			Prepared: 10/09/24		Analyzed: 10/10/24			
Arsenic	40.3	0.200	mg/kg dry	42.7	1.69	90.4	75-125			
Barium	92.7	0.400	"	42.7	54.4	89.7	75-125			
Cadmium	2.22	0.200	"	2.13	0.112	98.7	75-125			
Copper	42.0	0.400	"	42.7	5.05	86.5	75-125			
Lead	31.6	0.200	"	21.3	23.1	39.7	75-125			QM-05
Nickel	42.1	0.400	"	42.7	3.47	90.6	75-125			
Silver	2.07	0.0200	"	2.13	0.0179	96.2	75-125			
Zinc	54.2	0.400	"	42.7	15.7	90.2	75-125			
Selenium	3.43	0.260	"	4.27	ND	80.4	75-125			

Matrix Spike Dup (BHJ0337-MSD1)		Source: 2410128-01			Prepared: 10/09/24		Analyzed: 10/10/24			
Arsenic	40.1	0.200	mg/kg dry	42.7	1.69	90.1	75-125	0.411	25	
Barium	85.0	0.400	"	42.7	54.4	71.7	75-125	8.67	25	QM-05
Cadmium	2.21	0.200	"	2.13	0.112	98.3	75-125	0.366	25	
Copper	41.5	0.400	"	42.7	5.05	85.5	75-125	0.989	25	
Lead	30.7	0.200	"	21.3	23.1	35.4	75-125	2.97	25	QM-05
Nickel	41.5	0.400	"	42.7	3.47	89.0	75-125	1.63	25	
Silver	2.06	0.0200	"	2.13	0.0179	95.6	75-125	0.600	25	
Zinc	52.6	0.400	"	42.7	15.7	86.3	75-125	3.13	25	
Selenium	3.51	0.260	"	4.27	ND	82.1	75-125	2.08	25	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHJ0325 - 3060A Mod

Blank (BHJ0325-BLK1)

Prepared & Analyzed: 10/09/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHJ0325-BS1)

Prepared & Analyzed: 10/09/24

Chromium, Hexavalent 26.6 0.30 mg/kg wet 25.0 106 80-120

Duplicate (BHJ0325-DUP1)

Source: 2410126-01

Prepared & Analyzed: 10/09/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHJ0325-MS1)

Source: 2410126-01

Prepared & Analyzed: 10/09/24

Chromium, Hexavalent 28.7 0.30 mg/kg dry 28.7 ND 100 75-125

Matrix Spike Dup (BHJ0325-MSD1)

Source: 2410126-01

Prepared & Analyzed: 10/09/24

Chromium, Hexavalent 26.5 0.30 mg/kg dry 28.7 ND 92.4 75-125 8.10 20

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

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

Batch BHJ0339 - General Preparation

Blank (BHJ0339-BLK1)

Prepared: 10/09/24 Analyzed: 10/11/24

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

LCS (BHJ0339-BS1)

Prepared: 10/09/24 Analyzed: 10/11/24

Calcium	6.26	0.0500	mg/L wet	5.00	125	70-130
Magnesium	5.66	0.0500	"	5.00	113	70-130
Sodium	5.80	0.0500	"	5.00	116	70-130

Summit Scientific

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

Project: Chevron - Spike State CC30-18

Project Number: UWRWE-A3065-ABN

Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

Summit Scientific

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

Batch BHJ0326 - General Preparation

Duplicate (BHJ0326-DUP1)		Source: 2410128-01		Prepared & Analyzed: 10/09/24							
% Solids	94.3		%		93.7			0.656		20	

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

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

Batch BHJ0341 - General Preparation

Blank (BHJ0341-BLK1)

Prepared: 10/09/24 Analyzed: 10/10/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHJ0341-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

Duplicate (BHJ0341-DUP1)

Source: 2410128-01

Prepared: 10/09/24 Analyzed: 10/10/24

Specific Conductance (EC) 0.208 0.0100 mmhos/cm 0.210 0.718 20

Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

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

Batch BHJ0340 - General Preparation

LCS (BHJ0340-BS1)

Prepared: 10/09/24 Analyzed: 10/10/24

pH	9.08	pH Units	9.18	98.9	95-105
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Duplicate (BHJ0340-DUP1)

Source: 2410128-01

Prepared: 10/09/24 Analyzed: 10/10/24

pH	8.03	pH Units	7.96	0.863	20
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Summit Scientific

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

Project: Chevron - Spike State CC30-18
Project Number: UWRWE-A3065-ABN
Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

Notes and Definitions

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.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference