

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 written in a cursive, flowing style.

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

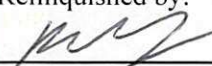
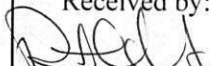
Reported:
 10/14/24 12:03

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

Client: Chevron/Tasman		Project Manager: AJ Engelhardt		Company: Chevron	
Address: 6855 W. 119th Avenue		E-Mail: tas-chevron-3@tasman-geo.com		Project Name/Location: Spike State CC30-18	
City/State/Zip: Broomfield, CO 80020				AFE#: UWRWE-A3065-ABN	
Phone:		Project Name: Spike State CC30-18		PO/Billing Codes:	
Sampler Name: Ryan Javinsky		Project Number:		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	FLOIR-We 3'	10/8/24	0800	3			3			X			X	X	X	X	X		
2	FLO1-03@3'		0811																
3	FLO2-01@3'		0813																
4	FLO1-08@4'		1003																
5	FLO2-06@4'		1005																
6	FLO1-09@3'		0900																
7	FLO2-07@3'		0903																
8	FLO1-10@4'		0908																
9	FLO2-08@4'		0911																
10	FLO1-11@3'		0914																
11	FLO2-09@3'		0916																
12	FLOIR-5@3'		1128																
13	FLO2R-5@3'		1134																
14	BK601@2'		1100																
15	BK601@3'		1104																

Relinquished by: 	Date/Time: 10/8/24 1320	Received by: Tasman Lockbox	Date/Time: 10/9/24 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	<input checked="" type="checkbox"/> Field Turb.	



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

Lab ID	Page 2 of 2
2410128	

Send Data To:		Send Invoice To:	
Client: Chevron/Tasman	Project Manager: AJ Engelhardt	Company: Chevron	
Address: 6855 W. 119th Avenue	E-Mail: tas-chevron-3@tasman-geo.com	Project Name/Location: Spike State C30-18	
City/State/Zip: Broomfield, CO 80020		AFE#: UWRWE-13065-ABN	
Phone:	Project Name: Spike State C30-18	PO/Billing Codes:	
Sampler Name: Ryan Yonnsky	Project Number:	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	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: <i>[Signature]</i>	Date/Time: 10/8/24 1320	Received by: <i>Tasman</i>	Date/Time: 10/8/24 1320	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: <i>Tasman</i>	Date/Time: 10/8/24 1747	Received by: <i>[Signature]</i>	Date/Time: 10/8/24 1747	1 Day	Field ORP	
				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# 2410128

Client: Chevron Fisman Client Project ID: Spike State CC 30-18

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #:

Matrix (Check all that apply) Air Soil/Solid Water Other

Temp (°C) Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

SN
Custodian Printed Name

10/8/24
Date/Time



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-W@3'
2410128-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

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

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 08:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
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		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 08:00**

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

PAH by EPA Method 8270D SIM

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Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

Summit Scientific

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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Tasman Geosciences
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Broomfield CO, 80020

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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

Total Metals by EPA 6020B

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

Summit Scientific

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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Reported:
10/14/24 12:03

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

Summit Scientific

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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Reported:
10/14/24 12:03

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

Summit Scientific

PAH by EPA Method 8270D SIM

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 08:11**

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

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

Reported:
10/14/24 12:03

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

Summit Scientific

Total Metals by EPA 6020B

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

PAH by EPA Method 8270D SIM

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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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 08:13**

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

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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)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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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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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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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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 10:03**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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

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

PAH by EPA Method 8270D SIM

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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

FL02-06@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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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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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)

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Physical Parameters by APHA/ASTM/EPA Methods

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% 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		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
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		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.33			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

FL01-09@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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% 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		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
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		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	6.62			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

FL02-07@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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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

FL02-07@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	

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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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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
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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

FL02-07@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		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 09:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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		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 09:08**

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

PAH by EPA Method 8270D SIM

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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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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)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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

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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

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

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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	

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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

FL02-08@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

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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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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	"	"	"	"	"	"	
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 Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 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 09:11**

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

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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

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

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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Project Manager: AJ Engelhardt

Reported:
10/14/24 12:03

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

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

PAH by EPA Method 8270D SIM

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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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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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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

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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	

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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

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

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

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

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

PAH by EPA Method 8270D SIM

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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

FL02-09@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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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)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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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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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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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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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

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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

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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

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	

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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

Volatile Organic Compounds by EPA Method 8260B

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

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

PAH by EPA Method 8270D SIM

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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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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

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

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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

BKG01@2'
2410128-14 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

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

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 11:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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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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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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		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 11:04**

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	
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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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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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		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 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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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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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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	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0433</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0411</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>50-150</i>				

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				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0424</i>		<i>"</i>	<i>0.0400</i>		<i>106</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0406</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0419</i>		<i>"</i>	<i>0.0400</i>		<i>105</i>	<i>50-150</i>				

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				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0435</i>		<i>"</i>	<i>0.0400</i>		<i>109</i>	<i>50-150</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>50-150</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>50-150</i>				

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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

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 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			

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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

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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: <i>o</i> -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		Notes
	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			

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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0145</i>		<i>"</i>	<i>0.0333</i>		<i>43.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0141</i>		<i>"</i>	<i>0.0333</i>		<i>42.3</i>	<i>40-150</i>			

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	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0151</i>		<i>"</i>	<i>0.0333</i>		<i>45.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0145</i>		<i>"</i>	<i>0.0333</i>		<i>43.5</i>	<i>40-150</i>			

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

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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

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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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		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

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

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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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

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

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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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		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

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	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

Duplicate (BHJ0340-DUP1)

Source: 2410128-01

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

pH 8.03 pH Units 7.96 0.863 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

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