

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 13, 2022

J Galles

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: Facility #4 AE2

Work Order #2204436

Enclosed are the results of analyses for samples received by Summit Scientific on 04/28/22 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, flowing script.

Paul Shrewsbury

President



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1@7'	2204436-01	Soil	04/28/22 10:25	04/28/22 15:00
SW-2@7'	2204436-02	Soil	04/28/22 10:30	04/28/22 15:00
SW-3@7'	2204436-03	Soil	04/28/22 10:35	04/28/22 15:00
SW-4@7'	2204436-04	Soil	04/28/22 10:40	04/28/22 15:00
SW-5@7'	2204436-05	Soil	04/28/22 10:45	04/28/22 15:00
SW-6@7'	2204436-06	Soil	04/28/22 10:50	04/28/22 15:00
BH-1@8'	2204436-07	Soil	04/28/22 10:55	04/28/22 15:00
BH-2@8'	2204436-08	Soil	04/28/22 11:00	04/28/22 15:00

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Summit Scientific

2204436.1

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 2

Client: K.P. Kauffman/ Marcom

Project Manager: Jen Galles

Address: 1675 Broadway

E-Mail: primarycontractor@marcomllc.net

City/State/Zip: Denver, CO 80202

Phone: 303.825.4822

Project Name: KPK - Facility #4 AE2

Sampler Name: LK + BR + HC

Project Number: KPK - Facility #4 AE2

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Full Table 915								
1	SW-1@7'	4-28-22	10:25	3			X			X				X							
2	SW-2@7'		10:30																		
3	SW-3@7'		LK 10:40 10:35																		
4	SW-4@7'		LK 10:45 10:40																		
5	SW-4 SW-5@7'		LK 10:50 10:45																		
6	SW-6@7'		LK 10:55 10:50																		
7	BH-1@8'		10:55																		
8	BH-2@8'		11:00																		
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
LM Kelly	4-28-22 12:40	[Signature]	4-28-22 1500	Same Day	72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours		
				Sample Integrity:		
				Temperature Upon Receipt:		59.1
				Samples Intact:		Yes No

S₂

2/2
Sample Receipt Checklist

S2 Work Order# 2204436

Client: Kp Kauffman Client Project ID: Kpk-Facility #4AE2

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

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

Temp (°C) 59 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on ICE
Were all samples received intact ⁽¹⁾ ?	-			
Was adequate sample volume provided ⁽¹⁾ ?	-			
If custody seals are present, are they intact ⁽¹⁾ ?	-			
Are samples due within 48 hours present?	-			24 hrs
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen			-	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	-			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	-			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	-			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	
Additional Comments (if any): 				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				


Custodian Printed Name

4-28-22
Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0356	89.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0387	96.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0364	91.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	10.3	82.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2
Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.00532	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00600	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0104	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.0147	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0197	59.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	48.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.325	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.74	0.235	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	127	0.471	"	"	"	"	"	"
Cadmium	ND	0.235	"	"	"	"	"	"
Copper	12.4	0.471	"	"	"	"	"	"
Lead	8.93	0.235	"	"	"	"	"	"
Nickel	13.6	0.471	"	"	"	"	"	"
Selenium	0.789	0.306	"	"	"	"	"	"
Silver	0.0450	0.0235	"	"	"	"	"	"
Zinc	46.1	0.471	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13.8	0.0589	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	2.91	0.0589	"	"	"	"	"	"	
Sodium	1.38	0.0589	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0881	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.9	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.23	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0347	86.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0356	89.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.3	98.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	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: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0239	71.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.418	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.12	0.237	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	70.7	0.474	"	"	"	"	"	"
Cadmium	ND	0.237	"	"	"	"	"	"
Copper	13.3	0.474	"	"	"	"	"	"
Lead	10.6	0.237	"	"	"	"	"	"
Nickel	13.9	0.474	"	"	"	"	"	"
Selenium	0.738	0.308	"	"	"	"	"	"
Silver	0.0504	0.0237	"	"	"	"	"	"
Zinc	50.2	0.474	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	8.13	0.0592	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	2.06	0.0592	"	"	"	"	"	"	
Sodium	2.36	0.0592	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.191	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.4	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.23	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.93		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0358	89.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0364	91.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	10.6	84.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	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: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0186	55.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0155	46.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.328	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.19	0.225	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	437	0.451	"	"	"	"	"	"
Cadmium	0.258	0.225	"	"	"	"	"	"
Copper	13.0	0.451	"	"	"	"	"	"
Lead	9.86	0.225	"	"	"	"	"	"
Nickel	13.1	0.451	"	"	"	"	"	"
Selenium	0.818	0.293	"	"	"	"	"	"
Silver	0.0400	0.0225	"	"	"	"	"	"
Zinc	50.2	0.451	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	7.42	0.0563	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	1.83	0.0563	"	"	"	"	"	"	
Sodium	4.28	0.0563	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.365	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.8	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.44	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0349	87.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0362	90.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.2	106 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.00594	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00546	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: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0238	71.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.290	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.65	0.229	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	142	0.458	"	"	"	"	"	"
Cadmium	ND	0.229	"	"	"	"	"	"
Copper	14.0	0.458	"	"	"	"	"	"
Lead	9.92	0.229	"	"	"	"	"	"
Nickel	15.1	0.458	"	"	"	"	"	"
Selenium	0.901	0.298	"	"	"	"	"	"
Silver	0.0527	0.0229	"	"	"	"	"	"
Zinc	51.3	0.458	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.7	0.0572	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.77	0.0572	"	"	"	"	"	"	
Sodium	9.31	0.0572	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.561	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.4	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.67	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.04		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0348	86.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0366	91.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.4	98.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2
Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	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: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0209	62.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0192	57.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.320	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.09	0.233	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	112	0.466	"	"	"	"	"	"
Cadmium	16.5	0.233	"	"	"	"	"	"
Copper	12.6	0.466	"	"	"	"	"	"
Lead	12.3	0.233	"	"	"	"	"	"
Nickel	13.6	0.466	"	"	"	"	"	"
Selenium	0.765	0.303	"	"	"	"	"	"
Silver	2.39	0.0233	"	"	"	"	"	"
Zinc	50.2	0.466	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.59	0.0582	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.85	0.0582	"	"	"	"	"	"	
Sodium	9.77	0.0582	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.674	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.9	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.24	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.97		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0361	90.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0365	91.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.4	107 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	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: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	60.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0166	49.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.647	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.33	0.231	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	114	0.463	"	"	"	"	"	"
Cadmium	ND	0.231	"	"	"	"	"	"
Copper	13.8	0.463	"	"	"	"	"	"
Lead	9.69	0.231	"	"	"	"	"	"
Nickel	16.0	0.463	"	"	"	"	"	"
Selenium	0.787	0.301	"	"	"	"	"	"
Silver	0.0531	0.0231	"	"	"	"	"	"
Zinc	53.6	0.463	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	6.73	0.0578	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	1.77	0.0578	"	"	"	"	"	"	
Sodium	4.39	0.0578	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.389	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:50**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	86.5	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.77	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.95		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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	1.6	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0377	94.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.9	112 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0537	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	0.0912	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.205	0.0500	"	10	"	"	"	"	
Benzo (a) pyrene	0.159	0.00500	"	1	"	"	"	"	
Benzo (b) fluoranthene	0.190	0.0500	"	10	"	"	"	"	
Benzo (k) fluoranthene	0.0921	0.00500	"	1	"	"	"	"	
Chrysene	0.234	0.0500	"	10	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	1	"	"	"	"	
Fluoranthene	0.370	0.0500	"	10	"	"	"	"	
Fluorene	0.0812	0.00500	"	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0499	0.00500	"	"	"	"	"	"	
Pyrene	0.335	0.0500	"	10	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	1	"	"	"	"	
2-Methylnaphthalene	0.321	0.0500	"	10	"	"	"	"	

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0283	85.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0251	75.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.382	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.65	0.267	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Barium	141	0.535	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Cadmium	ND	0.267	"	"	"	"	"	"
Copper	14.5	0.535	"	"	"	"	"	"
Lead	9.83	0.267	"	"	"	"	"	"
Nickel	15.4	0.535	"	"	"	"	"	"
Selenium	0.915	0.348	"	"	"	"	"	"
Silver	0.0551	0.0267	"	"	"	"	"	"
Zinc	53.8	0.535	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	17.3	0.0669	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.82	0.0669	"	"	"	"	"	"	
Sodium	4.40	0.0669	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.250	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	74.8		%	1	BFE0030	05/02/22	05/03/22	Calculation	

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Specific Conductance (EC)	2.93	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
pH	7.82		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	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: **04/28/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0362	90.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0371	92.7 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/04/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 11:00**

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

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	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: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0204	61.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.297	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.88	0.243	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	101	0.486	"	"	"	"	"	"
Cadmium	0.247	0.243	"	"	"	"	"	"
Copper	15.8	0.486	"	"	"	"	"	"
Lead	12.7	0.243	"	"	"	"	"	"
Nickel	15.8	0.486	"	"	"	"	"	"
Selenium	0.887	0.316	"	"	"	"	"	"
Silver	0.0659	0.0243	"	"	"	"	"	"
Zinc	57.0	0.486	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	11.9	0.0607	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.28	0.0607	"	"	"	"	"	"	
Sodium	5.60	0.0607	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.371	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 11:00**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.4	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.43	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.02		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFE0009 - EPA 5030 Soil MS

Blank (BFE0009-BLK1)

Prepared: 05/02/22 Analyzed: 05/03/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0344		"	0.0400		86.0	50-150			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0350		"	0.0400		87.5	50-150			

LCS (BFE0009-BS1)

Prepared: 05/02/22 Analyzed: 05/03/22

Benzene	0.0666	0.0020	mg/kg	0.0750		88.8	70-130			
Toluene	0.0695	0.0050	"	0.0750		92.7	70-130			
Ethylbenzene	0.0664	0.0050	"	0.0750		88.6	70-130			
m,p-Xylene	0.164	0.010	"	0.150		109	70-130			
o-Xylene	0.0751	0.0050	"	0.0750		100	70-130			
1,2,4-Trimethylbenzene	0.0703	0.0050	"	0.0750		93.8	70-130			
1,3,5-Trimethylbenzene	0.0676	0.0050	"	0.0750		90.2	70-130			
Naphthalene	0.0574	0.0038	"	0.0750		76.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0400		84.4	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.4	50-150			

Matrix Spike (BFE0009-MS1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

Benzene	0.0640	0.0020	mg/kg	0.0750	ND	85.4	70-130			
Toluene	0.0678	0.0050	"	0.0750	ND	90.4	70-130			
Ethylbenzene	0.0656	0.0050	"	0.0750	ND	87.4	70-130			
m,p-Xylene	0.158	0.010	"	0.150	ND	105	70-130			
o-Xylene	0.0734	0.0050	"	0.0750	ND	97.9	70-130			
1,2,4-Trimethylbenzene	0.0707	0.0050	"	0.0750	ND	94.3	70-130			
1,3,5-Trimethylbenzene	0.0672	0.0050	"	0.0750	ND	89.6	70-130			
Naphthalene	0.0754	0.0038	"	0.0750	ND	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0340		"	0.0400		85.0	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.1	50-150			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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

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

Batch BFE0009 - EPA 5030 Soil MS

Matrix Spike Dup (BFE0009-MSD1)	Source: 2204436-01			Prepared: 05/02/22 Analyzed: 05/03/22						
Benzene	0.0653	0.0020	mg/kg	0.0750	ND	87.0	70-130	1.95	30	
Toluene	0.0685	0.0050	"	0.0750	ND	91.3	70-130	1.01	30	
Ethylbenzene	0.0660	0.0050	"	0.0750	ND	88.0	70-130	0.593	30	
m,p-Xylene	0.160	0.010	"	0.150	ND	106	70-130	0.982	30	
o-Xylene	0.0750	0.0050	"	0.0750	ND	100	70-130	2.06	30	
1,2,4-Trimethylbenzene	0.0727	0.0050	"	0.0750	ND	96.9	70-130	2.72	30	
1,3,5-Trimethylbenzene	0.0689	0.0050	"	0.0750	ND	91.8	70-130	2.42	30	
Naphthalene	0.0827	0.0038	"	0.0750	ND	110	70-130	9.18	30	
Surrogate: 1,2-Dichloroethane-d4	0.0352		"	0.0400		88.0	50-150			
Surrogate: Toluene-d8	0.0384		"	0.0400		95.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	50-150			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BFE0010 - EPA 3550A

Blank (BFE0010-BLK1)

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

LCS (BFE0010-BS1)

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	481	50	mg/kg	500	96.2	70-130
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Matrix Spike (BFE0010-MS1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	449	50	mg/kg	500	7.98	88.2	70-130
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Matrix Spike Dup (BFE0010-MSD1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	407	50	mg/kg	500	7.98	79.7	70-130	9.92	20
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFD0641 - EPA 5030 Soil MS

Blank (BFD0641-BLK1)

Prepared: 04/29/22 Analyzed: 05/03/22

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	0.0411		"	0.0333		123	40-150			
Surrogate: Fluoranthene-d10	0.0305		"	0.0333		91.4	40-150			

LCS (BFD0641-BS1)

Prepared: 04/29/22 Analyzed: 05/03/22

Acenaphthene	0.0312	0.00500	mg/kg	0.0333		93.5	31-137			
Anthracene	0.0321	0.00500	"	0.0333		96.2	30-120			
Benzo (a) anthracene	0.0335	0.00500	"	0.0333		100	30-120			
Benzo (a) pyrene	0.0327	0.00500	"	0.0333		98.0	30-120			
Benzo (b) fluoranthene	0.0367	0.00500	"	0.0333		110	30-120			
Benzo (k) fluoranthene	0.0366	0.00500	"	0.0333		110	30-120			
Chrysene	0.0341	0.00500	"	0.0333		102	30-120			
Dibenz (a,h) anthracene	0.0209	0.00500	"	0.0333		62.8	30-120			
Fluoranthene	0.0300	0.00500	"	0.0333		89.9	30-120			
Fluorene	0.0313	0.00500	"	0.0333		93.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0265	0.00500	"	0.0333		79.5	30-120			
Pyrene	0.0378	0.00500	"	0.0333		114	35-142			
1-Methylnaphthalene	0.0368	0.00500	"	0.0333		110	35-142			
2-Methylnaphthalene	0.0367	0.00500	"	0.0333		110	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0365		"	0.0333		110	40-150			
Surrogate: Fluoranthene-d10	0.0307		"	0.0333		92.2	40-150			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFD0641 - EPA 5030 Soil MS

Matrix Spike (BFD0641-MS1)

Source: 2204427-01

Prepared: 04/29/22 Analyzed: 05/03/22

Acenaphthene	0.0187	0.00500	mg/kg	0.0333	ND	56.1	31-137			
Anthracene	0.0196	0.00500	"	0.0333	ND	58.8	30-120			
Benzo (a) anthracene	0.0224	0.00500	"	0.0333	ND	67.1	30-120			
Benzo (a) pyrene	0.0206	0.00500	"	0.0333	ND	61.7	30-120			
Benzo (b) fluoranthene	0.0227	0.00500	"	0.0333	ND	68.0	30-120			
Benzo (k) fluoranthene	0.0223	0.00500	"	0.0333	ND	66.8	30-120			
Chrysene	0.0227	0.00500	"	0.0333	ND	68.2	30-120			
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.2	30-120			
Fluoranthene	0.0186	0.00500	"	0.0333	ND	55.9	30-120			
Fluorene	0.0189	0.00500	"	0.0333	ND	56.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0183	0.00500	"	0.0333	ND	54.8	30-120			
Pyrene	0.0275	0.00500	"	0.0333	ND	82.4	35-142			
1-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.7	15-130			
2-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	54.8	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0192		"	0.0333		57.6	40-150			
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.3	40-150			

Matrix Spike Dup (BFD0641-MSD1)

Source: 2204427-01

Prepared: 04/29/22 Analyzed: 05/03/22

Acenaphthene	0.0167	0.00500	mg/kg	0.0333	ND	50.0	31-137	11.6	30	
Anthracene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	14.1	30	
Benzo (a) anthracene	0.0190	0.00500	"	0.0333	ND	57.0	30-120	16.3	30	
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.1	30-120	15.0	30	
Benzo (b) fluoranthene	0.0201	0.00500	"	0.0333	ND	60.4	30-120	11.9	30	
Benzo (k) fluoranthene	0.0197	0.00500	"	0.0333	ND	59.2	30-120	12.1	30	
Chrysene	0.0196	0.00500	"	0.0333	ND	58.7	30-120	15.0	30	
Dibenz (a,h) anthracene	0.0105	0.00500	"	0.0333	ND	31.5	30-120	24.2	30	
Fluoranthene	0.0158	0.00500	"	0.0333	ND	47.5	30-120	16.4	30	
Fluorene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	10.5	30	
Indeno (1,2,3-cd) pyrene	0.0208	0.00500	"	0.0333	ND	62.2	30-120	12.7	30	
Pyrene	0.0222	0.00500	"	0.0333	ND	66.6	35-142	21.2	30	
1-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.8	15-130	7.13	50	
2-Methylnaphthalene	0.0172	0.00500	"	0.0333	ND	51.5	15-130	6.16	50	
Surrogate: 2-Methylnaphthalene-d10	0.0174		"	0.0333		52.1	40-150			
Surrogate: Fluoranthene-d10	0.0162		"	0.0333		48.6	40-150			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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

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

Batch BFE0052 - EPA 3050B

Blank (BFE0052-BLK1)

Prepared: 05/03/22 Analyzed: 05/12/22

Boron ND 0.0100 mg/L

LCS (BFE0052-BS1)

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 5.03 0.0100 mg/L 5.00 101 80-120

Duplicate (BFE0052-DUP1)

Source: 2204427-01

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 0.0909 0.0100 mg/L 0.0913 0.374 20

Matrix Spike (BFE0052-MS1)

Source: 2204427-01

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 5.00 0.0100 mg/L 5.00 0.0913 98.3 75-125

Matrix Spike Dup (BFE0052-MSD1)

Source: 2204427-01

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 5.01 0.0100 mg/L 5.00 0.0913 98.4 75-125 0.179 25

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BFE0027 - EPA 3050B

Blank (BFE0027-BLK1)

Prepared: 05/02/22 Analyzed: 05/11/22

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	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BFE0027-BS1)

Prepared: 05/02/22 Analyzed: 05/11/22

Arsenic	33.1	0.200	mg/kg wet	40.0	82.8	80-120
Barium	35.6	0.400	"	40.0	89.0	80-120
Cadmium	1.67	0.200	"	2.00	83.4	80-120
Copper	32.1	0.400	"	40.0	80.3	80-120
Lead	19.5	0.200	"	20.0	97.7	80-120
Nickel	35.4	0.400	"	40.0	88.6	80-120
Selenium	3.56	0.260	"	4.00	89.0	80-120
Silver	1.99	0.0200	"	2.00	99.3	80-120
Zinc	34.5	0.400	"	40.0	86.2	80-120

Duplicate (BFE0027-DUP1)

Source: 2204427-01

Prepared: 05/02/22 Analyzed: 05/11/22

Arsenic	20.1	0.254	mg/kg dry	14.7	31.2	20	QR-03
Barium	24.2	0.507	"	23.8	1.76	20	
Cadmium	0.182	0.254	"	0.152	17.9	20	
Copper	33.9	0.507	"	30.8	9.40	20	
Lead	13.3	0.254	"	11.8	11.8	20	
Nickel	9.41	0.507	"	9.09	3.45	20	
Selenium	0.847	0.330	"	0.737	13.9	20	
Silver	0.0479	0.0254	"	0.0438	8.73	20	
Zinc	54.4	0.507	"	52.3	4.02	20	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BFE0027 - EPA 3050B

Matrix Spike (BFE0027-MS1)		Source: 2204427-01			Prepared: 05/02/22 Analyzed: 05/11/22					
Arsenic	55.5	0.254	mg/kg dry	50.7	14.7	80.5	75-125			
Barium	67.6	0.507	"	50.7	23.8	86.4	75-125			
Cadmium	2.16	0.254	"	2.54	0.152	79.2	75-125			
Copper	74.6	0.507	"	50.7	30.8	86.2	75-125			
Lead	34.3	0.254	"	25.4	11.8	88.5	75-125			
Nickel	50.0	0.507	"	50.7	9.09	80.6	75-125			
Selenium	4.02	0.330	"	5.07	0.737	64.7	75-125			QM-05
Silver	1.96	0.0254	"	2.54	0.0438	75.7	75-125			
Zinc	91.0	0.507	"	50.7	52.3	76.2	75-125			

Matrix Spike Dup (BFE0027-MSD1)		Source: 2204427-01			Prepared: 05/02/22 Analyzed: 05/11/22					
Arsenic	55.0	0.254	mg/kg dry	50.7	14.7	79.5	75-125	0.876	25	
Barium	72.6	0.507	"	50.7	23.8	96.3	75-125	7.15	25	
Cadmium	2.24	0.254	"	2.54	0.152	82.3	75-125	3.60	25	
Copper	72.2	0.507	"	50.7	30.8	81.5	75-125	3.27	25	
Lead	34.2	0.254	"	25.4	11.8	88.3	75-125	0.175	25	
Nickel	51.9	0.507	"	50.7	9.09	84.4	75-125	3.85	25	
Selenium	4.06	0.330	"	5.07	0.737	65.6	75-125	1.07	25	QM-05
Silver	2.07	0.0254	"	2.54	0.0438	79.9	75-125	5.24	25	
Zinc	92.8	0.507	"	50.7	52.3	79.9	75-125	2.01	25	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BFE0201 - 3060A Mod

Blank (BFE0201-BLK1)

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BFE0201-BS1)

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent 24.9 0.30 mg/kg wet 25.0 99.6 80-120

Duplicate (BFE0201-DUP1)

Source: 2204412-01

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BFE0201-MS1)

Source: 2204412-01

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent 25.4 0.30 mg/kg dry 26.2 ND 97.0 75-125

Matrix Spike Dup (BFE0201-MSD1)

Source: 2204412-01

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent 24.4 0.30 mg/kg dry 26.2 ND 93.2 75-125 4.00 20

Summit Scientific

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



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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

Summit Scientific

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

Batch BFE0150 - General Preparation

Blank (BFE0150-BLK1)

Prepared: 05/08/22 Analyzed: 05/12/22

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

LCS (BFE0150-BS1)

Prepared: 05/08/22 Analyzed: 05/12/22

Calcium	5.00	0.0500	mg/L wet	5.00	100	70-130
Magnesium	5.22	0.0500	"	5.00	104	70-130
Sodium	4.99	0.0500	"	5.00	99.9	70-130

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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

Summit Scientific

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

Batch BFE0030 - General Preparation

Duplicate (BFE0030-DUP1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

% Solids	84.9	%	84.9	0.0465	20
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Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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

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

Batch BFE0153 - General Preparation

Blank (BFE0153-BLK1)

Prepared: 05/08/22 Analyzed: 05/09/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFE0153-BS1)

Prepared: 05/08/22 Analyzed: 05/09/22

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BFE0153-DUP1)

Source: 2204436-01

Prepared: 05/08/22 Analyzed: 05/09/22

Specific Conductance (EC) 1.22 0.0100 mmhos/cm 1.23 0.735 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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

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

Batch BFE0154 - General Preparation

LCS (BFE0154-BS1)

Prepared: 05/08/22 Analyzed: 05/09/22

pH	9.19	pH Units	9.18	100	95-105
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Duplicate (BFE0154-DUP1)

Source: 2204436-01

Prepared: 05/08/22 Analyzed: 05/09/22

pH	8.08	pH Units	8.10	0.247	20
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Summit Scientific

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



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
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