

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 09, 2022

Jennifer Galles

Marcom LLC

1811 East Mulberry St.

Fort Collins, CO 80524

RE: KPK - RMF

Work Order #2205324

Enclosed are the results of analyses for samples received by Summit Scientific on 05/19/22 16:00. 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, cursive script.

Paul Shrewsbury

President



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-8@1'	2205324-01	Soil	05/19/22 09:10	05/19/22 16:00
SW-9@5'	2205324-02	Soil	05/19/22 09:15	05/19/22 16:00
SW-10@5'	2205324-03	Soil	05/19/22 09:20	05/19/22 16:00
SW-11@5'	2205324-04	Soil	05/19/22 09:25	05/19/22 16:00

Summit Scientific

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# Summit Scientific

2205324

S<sub>2</sub>

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Client: KP Kaufman (MarCom) Project Manager: Jennifer Guller Page 1 of 1  
 Address: 1675 Broadway E-Mail: primarycontractor@marcomllc.net  
 City/State/Zip: Denver, CO 80202  
 Phone: 303.825.4822 Project Name: BNLF  
 Sampler Name: Blake B. Harrison C. Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other									
1	SW-8 @ 1'	5.14.22	0910	3			X			X											
2	SW-9 @ 5'	↓	0915	1			X			X											
3	SW-10 @ 5'	↓	0920	1			X			X											
4	SW-11 @ 5'	↓	0925	1			X			X											
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: <u>PK</u>	Date/Time: <u>5.14.22 1330</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5.14.22 1600</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 hours	
				24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
				48 hours <input type="checkbox"/>	
Temperature Upon Receipt: <u>S.O.</u>	Corrected Temperature <u>S.O.</u>	HNO <sub>3</sub> lot #	Sample Integrity:		
IR gun correction: <u>0</u>	IR gun #: <u>1</u>		Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Client: Kp Kauffman (marcom) Client Project ID: RMF

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) 5.0

Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C <sup>(1)</sup> ? <b>NOTE:</b> 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 <sup>(1)</sup> ?	-			
Was adequate sample volume provided <sup>(1)</sup> ?	-			
If custody seals are present, are they intact <sup>(1)</sup> ?	-			
Are samples due within 48 hours present?		-		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , 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 <sup>(1)</sup> ?	-			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	-			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	-			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	
Additional Comments (if any):				

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

[Signature]  
Custodian Printed Name

5.19.22  
Date/Time



Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-8@1'**  
**2205324-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFE0518	05/24/22	05/24/22	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: **05/19/22 09:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0434	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0520	05/24/22	05/24/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	13.3	106 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-8@1'**  
**2205324-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0488	05/23/22	05/24/22	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: **05/19/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0226	67.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0222	66.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.566</b>	0.0100	mg/L	1	BFE0661	05/27/22	05/31/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-8@1'**  
**2205324-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.49	0.234	mg/kg dry	1	BFF0105	06/03/22	06/07/22	EPA 6020B	
Barium	164	0.468	"	"	"	"	"	"	
Cadmium	0.272	0.234	"	"	"	"	"	"	
Copper	13.2	0.468	"	"	"	"	"	"	
Lead	11.4	0.234	"	"	"	"	"	"	
Nickel	14.8	0.468	"	"	"	"	"	"	
Selenium	0.962	0.304	"	"	"	"	"	"	
Silver	0.0869	0.0234	"	"	"	"	"	"	
Zinc	42.8	0.468	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFF0013	06/01/22	06/01/22	EPA 7196A	

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

Date Sampled: **05/19/22 09:10**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4400	0.0585	mg/L dry	1	BFE0636	05/27/22	06/01/22	EPA 6020B	
Magnesium	443	0.0585	"	"	"	"	"	"	
Sodium	2550	0.0585	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	9.80	0.00100	units	1	BFF0008	06/01/22	06/01/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-8@1'**  
**2205324-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	85.4	%	1	BFE0673	05/28/22	05/29/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.35	0.0100	mmhos/cm	1	BFE0637	05/27/22	05/30/22	EPA 120.1	

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

Date Sampled: **05/19/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.23		pH Units	1	BFE0638	05/27/22	05/30/22	EPA 9045D	

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Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-9@5'**  
**2205324-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0518	05/24/22	05/24/22	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: **05/19/22 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0418	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0414	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0390	97.6 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0520	05/24/22	05/24/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/19/22 09:15**

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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Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-9@5'**  
**2205324-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0488	05/23/22	05/24/22	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: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0220	65.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.679</b>	0.0100	mg/L	1	BFE0661	05/27/22	05/31/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-9@5'**  
**2205324-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.45	0.240	mg/kg dry	1	BFF0105	06/03/22	06/07/22	EPA 6020B
Barium	112	0.480	"	"	"	"	"	"
Cadmium	0.247	0.240	"	"	"	"	"	"
Copper	11.6	0.480	"	"	"	"	"	"
Lead	9.74	0.240	"	"	"	"	"	"
Nickel	11.6	0.480	"	"	"	"	"	"
Selenium	0.738	0.312	"	"	"	"	"	"
Silver	0.0574	0.0240	"	"	"	"	"	"
Zinc	37.1	0.480	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFF0013	06/01/22	06/01/22	EPA 7196A	

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

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	6170	0.0600	mg/L dry	1	BFE0636	05/27/22	06/01/22	EPA 6020B	
Magnesium	614	0.0600	"	"	"	"	"	"	
Sodium	1880	0.0600	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.11	0.00100	units	1	BFF0008	06/01/22	06/01/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-9@5'**  
**2205324-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	83.3	%	1	BFE0673	05/28/22	05/29/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.65	0.0100	mmhos/cm	1	BFE0637	05/27/22	05/30/22	EPA 120.1	

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

Date Sampled: **05/19/22 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.15		pH Units	1	BFE0638	05/27/22	05/30/22	EPA 9045D	

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-10@5'**  
**2205324-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0518	05/24/22	05/24/22	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	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.0057</b>	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0418	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0395	98.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0520	05/24/22	05/24/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.9	103 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-10@5'**  
**2205324-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0488	05/23/22	05/24/22	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: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	60.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0191	57.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.504</b>	0.0100	mg/L	1	BFE0661	05/27/22	05/31/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-10@5'**  
**2205324-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	20.3	0.232	mg/kg dry	1	BFF0105	06/03/22	06/07/22	EPA 6020B
Barium	33.8	0.465	"	"	"	"	"	"
Cadmium	0.362	0.232	"	"	"	"	"	"
Copper	18.9	0.465	"	"	"	"	"	"
Lead	19.2	0.232	"	"	"	"	"	"
Nickel	12.5	0.465	"	"	"	"	"	"
Selenium	0.818	0.302	"	"	"	"	"	"
Silver	0.0492	0.0232	"	"	"	"	"	"
Zinc	74.7	0.465	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFF0013	06/01/22	06/01/22	EPA 7196A	

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

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	5220	0.0581	mg/L dry	1	BFE0636	05/27/22	06/01/22	EPA 6020B	
Magnesium	423	0.0581	"	"	"	"	"	"	
Sodium	1230	0.0581	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.40	0.00100	units	1	BFF0008	06/01/22	06/01/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-10@5'**  
**2205324-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	86.1	%	1	BFE0673	05/28/22	05/29/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.60	0.0100	mmhos/cm	1	BFE0637	05/27/22	05/30/22	EPA 120.1	

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

Date Sampled: **05/19/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.06		pH Units	1	BFE0638	05/27/22	05/30/22	EPA 9045D	

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1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-11@5'**  
**2205324-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0518	05/24/22	05/24/22	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: **05/19/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0420	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0421	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0394	98.6 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0520	05/24/22	05/24/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.2	113 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-11@5'**  
**2205324-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0488	05/23/22	05/24/22	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: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0230	68.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0243	72.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.835</b>	0.0100	mg/L	1	BFE0661	05/27/22	05/31/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-11@5'**  
**2205324-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	12.2	0.236	mg/kg dry	1	BFF0105	06/03/22	06/07/22	EPA 6020B
Barium	29.7	0.471	"	"	"	"	"	"
Cadmium	ND	0.236	"	"	"	"	"	"
Copper	16.2	0.471	"	"	"	"	"	"
Lead	14.6	0.236	"	"	"	"	"	"
Nickel	11.9	0.471	"	"	"	"	"	"
Selenium	0.852	0.306	"	"	"	"	"	"
Silver	0.0317	0.0236	"	"	"	"	"	"
Zinc	47.9	0.471	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFF0013	06/01/22	06/01/22	EPA 7196A	

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

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	937	0.0589	mg/L dry	1	BFE0636	05/27/22	06/01/22	EPA 6020B	
Magnesium	230	0.0589	"	"	"	"	"	"	
Sodium	748	0.0589	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.67	0.00100	units	1	BFF0008	06/01/22	06/01/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**SW-11@5'**  
**2205324-04 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	84.9	%	1	BFE0673	05/28/22	05/29/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.26	0.0100	mmhos/cm	1	BFE0637	05/27/22	05/30/22	EPA 120.1	

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

Date Sampled: **05/19/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.15		pH Units	1	BFE0638	05/27/22	05/30/22	EPA 9045D	

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

## 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 BFE0518 - EPA 5030 Soil MS

##### Blank (BFE0518-BLK1)

Prepared & Analyzed: 05/24/22

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	0.0409	"	0.0400	102	50-150
Surrogate: Toluene-d8	0.0420	"	0.0400	105	50-150
Surrogate: 4-Bromofluorobenzene	0.0399	"	0.0400	99.7	50-150

##### LCS (BFE0518-BS1)

Prepared & Analyzed: 05/24/22

Benzene	0.0670	0.0020	mg/kg	0.0750	89.4	70-130
Toluene	0.0639	0.0050	"	0.0750	85.2	70-130
Ethylbenzene	0.0603	0.0050	"	0.0750	80.4	70-130
m,p-Xylene	0.151	0.010	"	0.150	100	70-130
o-Xylene	0.0800	0.0050	"	0.0750	107	70-130
1,2,4-Trimethylbenzene	0.0605	0.0050	"	0.0750	80.7	70-130
1,3,5-Trimethylbenzene	0.0664	0.0050	"	0.0750	88.5	70-130
Naphthalene	0.0724	0.0038	"	0.0750	96.5	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0351	"	0.0400	87.8	50-150
Surrogate: Toluene-d8	0.0416	"	0.0400	104	50-150
Surrogate: 4-Bromofluorobenzene	0.0382	"	0.0400	95.4	50-150

##### Matrix Spike (BFE0518-MS1)

Source: 2205324-01

Prepared & Analyzed: 05/24/22

Benzene	0.0795	0.0020	mg/kg	0.0750	ND	106	70-130
Toluene	0.0843	0.0050	"	0.0750	ND	112	70-130
Ethylbenzene	0.0797	0.0050	"	0.0750	ND	106	70-130
m,p-Xylene	0.163	0.010	"	0.150	ND	109	70-130
o-Xylene	0.0764	0.0050	"	0.0750	ND	102	70-130
1,2,4-Trimethylbenzene	0.0795	0.0050	"	0.0750	ND	106	70-130
1,3,5-Trimethylbenzene	0.0801	0.0050	"	0.0750	ND	107	70-130
Naphthalene	0.0733	0.0038	"	0.0750	ND	97.7	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0428	"	0.0400	107	50-150
Surrogate: Toluene-d8	0.0422	"	0.0400	105	50-150
Surrogate: 4-Bromofluorobenzene	0.0400	"	0.0400	99.9	50-150

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFE0518 - EPA 5030 Soil MS**

Matrix Spike Dup (BFE0518-MSD1)		Source: 2205324-01			Prepared & Analyzed: 05/24/22					
Benzene	0.0751	0.0020	mg/kg	0.0750	ND	100	70-130	5.67	30	
Toluene	0.0778	0.0050	"	0.0750	ND	104	70-130	7.96	30	
Ethylbenzene	0.0759	0.0050	"	0.0750	ND	101	70-130	4.90	30	
m,p-Xylene	0.154	0.010	"	0.150	ND	103	70-130	5.78	30	
o-Xylene	0.0731	0.0050	"	0.0750	ND	97.5	70-130	4.29	30	
1,2,4-Trimethylbenzene	0.0744	0.0050	"	0.0750	ND	99.2	70-130	6.59	30	
1,3,5-Trimethylbenzene	0.0757	0.0050	"	0.0750	ND	101	70-130	5.70	30	
Naphthalene	0.0953	0.0038	"	0.0750	ND	127	70-130	26.2	30	
Surrogate: 1,2-Dichloroethane-d4		0.0422	"	0.0400		105	50-150			
Surrogate: Toluene-d8		0.0419	"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene		0.0397	"	0.0400		99.3	50-150			

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1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BFE0520 - EPA 3550A**

**Blank (BFE0520-BLK1)**

Prepared & Analyzed: 05/24/22

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

**LCS (BFE0520-BS1)**

Prepared & Analyzed: 05/24/22

C10-C28 (DRO)	452	50	mg/kg	500	90.5	70-130
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**Matrix Spike (BFE0520-MS1)**

Source: 2205324-01

Prepared & Analyzed: 05/24/22

C10-C28 (DRO)	513	50	mg/kg	500	29.3	96.8	70-130
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**Matrix Spike Dup (BFE0520-MSD1)**

Source: 2205324-01

Prepared & Analyzed: 05/24/22

C10-C28 (DRO)	481	50	mg/kg	500	29.3	90.4	70-130	6.49	20
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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

## 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 BFE0488 - EPA 5030 Soil MS

##### Blank (BFE0488-BLK1)

Prepared & Analyzed: 05/23/22

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	0.0304	"	0.0333	91.3	40-150
Surrogate: Fluoranthene-d10	0.0301	"	0.0333	90.4	40-150

##### LCS (BFE0488-BS1)

Prepared & Analyzed: 05/23/22

Acenaphthene	0.0263	0.00500	mg/kg	0.0333	79.0	31-137
Anthracene	0.0288	0.00500	"	0.0333	86.4	30-120
Benzo (a) anthracene	0.0275	0.00500	"	0.0333	82.6	30-120
Benzo (a) pyrene	0.0273	0.00500	"	0.0333	82.0	30-120
Benzo (b) fluoranthene	0.0285	0.00500	"	0.0333	85.6	30-120
Benzo (k) fluoranthene	0.0309	0.00500	"	0.0333	92.7	30-120
Chrysene	0.0298	0.00500	"	0.0333	89.4	30-120
Dibenz (a,h) anthracene	0.0211	0.00500	"	0.0333	63.4	30-120
Fluoranthene	0.0323	0.00500	"	0.0333	96.8	30-120
Fluorene	0.0284	0.00500	"	0.0333	85.1	30-120
Indeno (1,2,3-cd) pyrene	0.0185	0.00500	"	0.0333	55.5	30-120
Pyrene	0.0294	0.00500	"	0.0333	88.1	35-142
1-Methylnaphthalene	0.0242	0.00500	"	0.0333	72.6	35-142
2-Methylnaphthalene	0.0245	0.00500	"	0.0333	73.5	35-142

Surrogate: 2-Methylnaphthalene-d10	0.0243	"	0.0333	73.0	40-150
Surrogate: Fluoranthene-d10	0.0306	"	0.0333	91.8	40-150

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

## 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 BFE0488 - EPA 5030 Soil MS

Matrix Spike (BFE0488-MS1)			Source: 2205301-01		Prepared & Analyzed: 05/23/22					
Acenaphthene	0.0136	0.00500	mg/kg	0.0333	ND	40.9	31-137			
Anthracene	0.0144	0.00500	"	0.0333	ND	43.2	30-120			
Benzo (a) anthracene	0.0147	0.00500	"	0.0333	ND	44.2	30-120			
Benzo (a) pyrene	0.0137	0.00500	"	0.0333	ND	41.1	30-120			
Benzo (b) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.7	30-120			
Benzo (k) fluoranthene	0.0166	0.00500	"	0.0333	ND	49.7	30-120			
Chrysene	0.0150	0.00500	"	0.0333	ND	45.0	30-120			
Dibenz (a,h) anthracene	0.0109	0.00500	"	0.0333	ND	32.7	30-120			
Fluoranthene	0.0133	0.00500	"	0.0333	ND	40.0	30-120			
Fluorene	0.0135	0.00500	"	0.0333	ND	40.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0104	0.00500	"	0.0333	ND	31.2	30-120			
Pyrene	0.0146	0.00500	"	0.0333	ND	43.9	35-142			
1-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.7	15-130			
2-Methylnaphthalene	0.0141	0.00500	"	0.0333	ND	42.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0143		"	0.0333		42.9	40-150			
Surrogate: Fluoranthene-d10	0.0135		"	0.0333		40.6	40-150			

Matrix Spike Dup (BFE0488-MSD1)			Source: 2205301-01		Prepared & Analyzed: 05/23/22					
Acenaphthene	0.0203	0.00500	mg/kg	0.0333	ND	60.8	31-137	39.3	30	QR-02
Anthracene	0.0236	0.00500	"	0.0333	ND	70.8	30-120	48.3	30	QR-02
Benzo (a) anthracene	0.0234	0.00500	"	0.0333	ND	70.2	30-120	45.3	30	QR-02
Benzo (a) pyrene	0.0221	0.00500	"	0.0333	ND	66.3	30-120	46.9	30	QR-02
Benzo (b) fluoranthene	0.0249	0.00500	"	0.0333	ND	74.6	30-120	52.3	30	QR-02
Benzo (k) fluoranthene	0.0247	0.00500	"	0.0333	ND	74.1	30-120	39.4	30	QR-02
Chrysene	0.0243	0.00500	"	0.0333	ND	73.0	30-120	47.3	30	QR-02
Dibenz (a,h) anthracene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	43.8	30	QR-02
Fluoranthene	0.0249	0.00500	"	0.0333	ND	74.7	30-120	60.5	30	QR-02
Fluorene	0.0215	0.00500	"	0.0333	ND	64.6	30-120	46.1	30	QR-02
Indeno (1,2,3-cd) pyrene	0.0141	0.00500	"	0.0333	ND	42.4	30-120	30.4	30	QR-02
Pyrene	0.0246	0.00500	"	0.0333	ND	73.7	35-142	50.7	30	QR-02
1-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.6	15-130	42.9	50	
2-Methylnaphthalene	0.0218	0.00500	"	0.0333	ND	65.5	15-130	43.4	50	
Surrogate: 2-Methylnaphthalene-d10	0.0219		"	0.0333		65.8	40-150			
Surrogate: Fluoranthene-d10	0.0236		"	0.0333		70.9	40-150			

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFE0661 - EPA 3050B**

**Blank (BFE0661-BLK1)**

Prepared: 05/27/22 Analyzed: 05/31/22

Boron ND 0.0100 mg/L

**LCS (BFE0661-BS1)**

Prepared: 05/27/22 Analyzed: 05/31/22

Boron 5.65 0.0100 mg/L 5.00 113 80-120

**Duplicate (BFE0661-DUP1)**

**Source: 2202356-03**

Prepared: 05/27/22 Analyzed: 05/31/22

Boron 0.0479 0.0100 mg/L 0.0542 12.3 20

**Matrix Spike (BFE0661-MS1)**

**Source: 2202356-03**

Prepared: 05/27/22 Analyzed: 05/31/22

Boron 5.65 0.0100 mg/L 5.00 0.0542 112 75-125

**Matrix Spike Dup (BFE0661-MSD1)**

**Source: 2202356-03**

Prepared: 05/27/22 Analyzed: 05/31/22

Boron 5.76 0.0100 mg/L 5.00 0.0542 114 75-125 1.91 25

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFF0105 - EPA 3050B**

**Blank (BFF0105-BLK1)**

Prepared: 06/03/22 Analyzed: 06/07/22

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 (BFF0105-BS1)**

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	8.60	0.200	mg/kg wet	8.00	107	80-120
Barium	8.64	0.400	"	8.00	108	80-120
Cadmium	0.476	0.200	"	0.400	119	80-120
Copper	8.32	0.400	"	8.00	104	80-120
Lead	4.52	0.200	"	4.00	113	80-120
Nickel	8.27	0.400	"	8.00	103	80-120
Selenium	0.803	0.260	"	0.800	100	80-120
Silver	0.463	0.0200	"	0.400	116	80-120
Zinc	8.65	0.400	"	8.00	108	80-120

**Duplicate (BFF0105-DUP1)**

Source: 2203107-01

Prepared: 06/03/22 Analyzed: 06/07/22

Arsenic	0.431	0.205	mg/kg dry	0.460	6.43	20
Barium	12.3	0.411	"	13.3	8.01	20
Cadmium	0.0241	0.205	"	0.0269	11.0	20
Copper	1.26	0.411	"	1.30	3.36	20
Lead	1.37	0.205	"	1.58	14.1	20
Nickel	1.12	0.411	"	1.29	14.5	20
Selenium	0.196	0.267	"	0.315	46.3	20
Silver	0.00723	0.0205	"	0.00702	2.96	20
Zinc	5.28	0.411	"	5.07	4.09	20

QR-01

Summit Scientific

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFF0105 - EPA 3050B**

Matrix Spike (BFF0105-MS1)		Source: 2203107-01			Prepared: 06/03/22 Analyzed: 06/07/22					
Arsenic	9.32	0.205	mg/kg dry	8.22	0.460	108	75-125			
Barium	21.5	0.411	"	8.22	13.3	99.2	75-125			
Cadmium	0.494	0.205	"	0.411	0.0269	114	75-125			
Copper	9.71	0.411	"	8.22	1.30	102	75-125			
Lead	5.88	0.205	"	4.11	1.58	105	75-125			
Nickel	9.73	0.411	"	8.22	1.29	103	75-125			
Selenium	0.998	0.267	"	0.822	0.315	83.1	75-125			
Silver	0.461	0.0205	"	0.411	0.00702	111	75-125			
Zinc	14.6	0.411	"	8.22	5.07	116	75-125			

Matrix Spike Dup (BFF0105-MSD1)		Source: 2203107-01			Prepared: 06/03/22 Analyzed: 06/07/22					
Arsenic	8.72	0.205	mg/kg dry	8.22	0.460	100	75-125	6.74	25	
Barium	20.7	0.411	"	8.22	13.3	89.6	75-125	3.73	25	
Cadmium	0.460	0.205	"	0.411	0.0269	105	75-125	7.14	25	
Copper	9.26	0.411	"	8.22	1.30	96.8	75-125	4.76	25	
Lead	5.52	0.205	"	4.11	1.58	95.7	75-125	6.35	25	
Nickel	9.15	0.411	"	8.22	1.29	95.6	75-125	6.16	25	
Selenium	1.01	0.267	"	0.822	0.315	84.5	75-125	1.14	25	
Silver	0.421	0.0205	"	0.411	0.00702	101	75-125	9.17	25	
Zinc	13.8	0.411	"	8.22	5.07	106	75-125	5.62	25	

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFF0013 - 3060A Mod**

**Blank (BFF0013-BLK1)**

Prepared & Analyzed: 06/01/22

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BFF0013-BS1)**

Prepared & Analyzed: 06/01/22

Chromium, Hexavalent 29.9 0.30 mg/kg wet 25.0 120 80-120

**Duplicate (BFF0013-DUP1)**

**Source: 2205307-01**

Prepared & Analyzed: 06/01/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BFF0013-MS1)**

**Source: 2205307-01**

Prepared & Analyzed: 06/01/22

Chromium, Hexavalent 33.5 0.30 mg/kg dry 31.5 ND 106 75-125

**Matrix Spike Dup (BFF0013-MSD1)**

**Source: 2205307-01**

Prepared & Analyzed: 06/01/22

Chromium, Hexavalent 32.4 0.30 mg/kg dry 31.5 ND 103 75-125 3.44 20

Summit Scientific

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

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

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

**Batch BFE0636 - General Preparation**

**Blank (BFE0636-BLK1)**

Prepared: 05/27/22 Analyzed: 06/01/22

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

**LCS (BFE0636-BS1)**

Prepared: 05/27/22 Analyzed: 06/01/22

Calcium	594	0.0500	mg/L wet	500	119	70-130
Magnesium	545	0.0500	"	500	109	70-130
Sodium	508	0.0500	"	500	102	70-130

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFE0673 - General Preparation**

Duplicate (BFE0673-DUP1)		Source: 2205323-01			Prepared: 05/28/22 Analyzed: 05/29/22					
% Solids	83.4		%		83.3			0.179	20	

Summit Scientific

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFE0637 - General Preparation**

**Blank (BFE0637-BLK1)**

Prepared: 05/27/22 Analyzed: 05/30/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFE0637-BS1)**

Prepared: 05/27/22 Analyzed: 05/30/22

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

**Duplicate (BFE0637-DUP1)**

**Source: 2202356-03**

Prepared: 05/27/22 Analyzed: 05/30/22

Specific Conductance (EC) 0.579 0.0100 mmhos/cm 0.597 3.10 20

Summit Scientific

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

**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 BFE0638 - General Preparation**

**LCS (BFE0638-BS1)**

Prepared: 05/27/22 Analyzed: 05/30/22

pH	9.02	pH Units	9.18	98.3	95-105
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**Duplicate (BFE0638-DUP1)**

**Source: 2202356-03**

Prepared: 05/27/22 Analyzed: 05/30/22

pH	8.38	pH Units	8.34	0.478	20
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Summit Scientific

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Marcom LLC  
1811 East Mulberry St.  
Fort Collins CO, 80524

Project: KPK - RMF  
Project Number: [none]  
Project Manager: Jennifer Galles

**Reported:**  
06/09/22 13:41

### 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 less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
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