

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 12, 2021

Max Knop

K.P. Kauffman

1675 Broadway

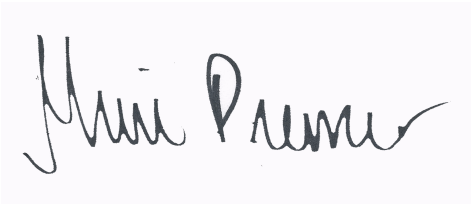
Denver, CO 80202

RE: RMF Consolidation

Work Order #2106263

Enclosed are the results of analyses for samples received by Summit Scientific on 06/11/21 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury  
President



K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N	2106263-01	Soil	06/10/21 13:40	06/11/21 15:00
W	2106263-02	Soil	06/10/21 13:45	06/11/21 15:00
E	2106263-03	Soil	06/10/21 13:50	06/11/21 15:00
S	2106263-04	Soil	06/10/21 13:55	06/11/21 15:00
BG #1	2106263-05	Soil	06/10/21 14:10	06/11/21 15:00
BG #2	2106263-06	Soil	06/10/21 14:15	06/11/21 15:00
BG #3	2106263-07	Soil	06/10/21 14:20	06/11/21 15:00

Summit Scientific

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2106263.

Page 1 of 1

Project Manager:	Max Knop
E-Mail:	mknop@kpk.com; mduran@kpk.com
Project Name:	RMF Consolidation
Project Number:	

				Preservative				Matrix				Analyze For:														
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Table 915-1 Suite	Arsenic								Special Instructions					
N	6/10/2021	13:40	3			x			x			x														
W	6/10/2021	13:45	3			x			x			x														
E	6/10/2021	13:50	3			x			x			x														
S	6/10/2021	13:55	3			x			x			x														
BG #1	6/10/2021	14:10	1			x			x				x													
BG #2	6/10/2021	14:15	1			x			x				x													
BG #3	6/10/2021	14:20	1			x			x				x													
New inorganic methods																										
Relinquished by: <i>U. Stephanie E. Ede</i>				Date/Time: <i>15:00 6/11/21</i>				Received by: <i>[Signature]</i>				Date/Time: <i>6/11/21 1500</i>				Turn Around Time (Check)				Notes:						
Relinquished by:				Date/Time:				Received by:				Date/Time:				Same Day <input type="checkbox"/>							72 Hours <input type="checkbox"/>			
																24 Hours <input type="checkbox"/>							Standard <input checked="" type="checkbox"/>			
Relinquished by:				Date/Time:				Received by:				Date/Time:				48 Hours <input type="checkbox"/>										
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:				Sample Integrity:				Temperature Upon Receipt: <i>5</i>						
																Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										

# Sample Receipt Checklist

S2 Work Order 2106263

Client: KP Kaufman

Client Project ID: RMF Consolidation

Shipped Via: ☒ H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: \_\_\_\_\_

Matrix (check all that apply): ☒ Air ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
(Describe)

Temp (°C) 5

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice.
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

JB  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

6/11/21  
Date/Time



K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**N**  
**2106263-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/10/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0383	06/17/21	06/18/21	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: **06/10/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		131 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		118 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0384	06/17/21	06/18/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		84.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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1675 Broadway  
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Project: RMF Consolidation

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Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

N  
2106263-01 (Soil)

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0107	07/07/21	07/10/21	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: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		49.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		64.0 %	40-150		"	"	"	"	

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

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.535	0.0100	mg/L	1	BEF0463	06/22/21	06/23/21	EPA 6020B	

#### Total Metals by EPA 6020B

Date Sampled: 06/10/21 13:40

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

Project: RMF Consolidation

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Project Manager: Max Knop

**Reported:**  
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N  
2106263-01 (Soil)

Summit Scientific

**Total Metals by EPA 6020B**

Arsenic	4.52	0.243	mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B
Barium	109	0.486	"	"	"	"	"	"
Cadmium	0.405	0.243	"	"	"	"	"	"
Copper	16.3	0.486	"	"	"	"	"	"
Lead	13.7	0.243	"	"	"	"	"	"
Nickel	19.3	0.486	"	"	"	"	"	"
Selenium	1.07	0.316	"	"	"	"	"	"
Silver	0.0388	0.0243	"	"	"	"	"	"
Zinc	54.0	0.486	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0410	06/17/21	06/18/21	EPA 7196A	

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

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	262	0.0608	mg/L dry	1	BEF0405	06/18/21	06/21/21	EPA 6020B	
Magnesium	118	0.0608	"	"	"	"	"	"	
Sodium	1190	0.0608	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	15.3	0.00100	units	1	BEF0488	06/23/21	06/23/21	Calculation	

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

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

N  
2106263-01 (Soil)

**Summit Scientific**

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

% Solids	82.2	%	1	BEF0395	06/18/21	06/18/21	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.55	0.0100	mmhos/cm	1	BEF0427	06/21/21	06/21/21	EPA 120.1	

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

Date Sampled: 06/10/21 13:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.09		pH Units	1	BEF0426	06/21/21	06/21/21	EPA 9045D	

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Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**W**  
**2106263-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0383	06/17/21	06/18/21	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: **06/10/21 13:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		126 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		112 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0384	06/17/21	06/18/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		80.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

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Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**W**  
**2106263-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0107	07/07/21	07/10/21	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: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.6 %	40-150		"	"	"	"	

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

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.425</b>	0.0100	mg/L	1	BEF0463	06/22/21	06/23/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 13:45**

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

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**W**  
**2106263-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	3.41	0.229	mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B
Barium	13.9	0.459	"	"	"	"	"	"
Cadmium	ND	0.229	"	"	"	"	"	"
Copper	8.81	0.459	"	"	"	"	"	"
Lead	10.2	0.229	"	"	"	"	"	"
Nickel	12.5	0.459	"	"	"	"	"	"
Selenium	0.892	0.298	"	"	"	"	"	"
Silver	0.0232	0.0229	"	"	"	"	"	"
Zinc	60.1	0.459	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0410	06/17/21	06/18/21	EPA 7196A	

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

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	82.4	0.0574	mg/L dry	1	BEF0405	06/18/21	06/21/21	EPA 6020B	
Magnesium	20.1	0.0574	"	"	"	"	"	"	
Sodium	203	0.0574	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.20	0.00100	units	1	BEF0488	06/23/21	06/23/21	Calculation	

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

Date Sampled: **06/10/21 13:45**

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

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**W**  
**2106263-02 (Soil)**

**Summit Scientific**

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

% Solids	87.2	%	1	BEF0395	06/18/21	06/18/21	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.31	0.0100	mmhos/cm	1	BEF0427	06/21/21	06/21/21	EPA 120.1	

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

Date Sampled: **06/10/21 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.29		pH Units	1	BEF0426	06/21/21	06/21/21	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**E**  
**2106263-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0383	06/17/21	06/18/21	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: **06/10/21 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.1 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0384	06/17/21	06/18/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		84.1 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**E**  
**2106263-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0107	07/07/21	07/10/21	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: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.7 %	40-150		"	"	"	"	

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

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.675</b>	0.0100	mg/L	1	BEF0463	06/22/21	06/23/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 13:50**

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

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**E**  
**2106263-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	5.12	0.242	mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B
Barium	189	0.483	"	"	"	"	"	"
Cadmium	0.339	0.242	"	"	"	"	"	"
Copper	16.9	0.483	"	"	"	"	"	"
Lead	12.8	0.242	"	"	"	"	"	"
Nickel	18.4	0.483	"	"	"	"	"	"
Selenium	1.31	0.314	"	"	"	"	"	"
Silver	0.0593	0.0242	"	"	"	"	"	"
Zinc	57.5	0.483	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0410	06/17/21	06/18/21	EPA 7196A	

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

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	174	0.0604	mg/L dry	1	BEF0405	06/18/21	06/22/21	EPA 6020B	
Magnesium	123	0.0604	"	"	"	"	"	"	
Sodium	1210	0.0604	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	17.2	0.00100	units	1	BEF0488	06/23/21	06/23/21	Calculation	

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

Date Sampled: **06/10/21 13:50**

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

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**E**  
**2106263-03 (Soil)**

**Summit Scientific**

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

% Solids	82.8	%	1	BEF0395	06/18/21	06/18/21	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.35	0.0100	mmhos/cm	1	BEF0427	06/21/21	06/21/21	EPA 120.1	

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

Date Sampled: **06/10/21 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.13		pH Units	1	BEF0426	06/21/21	06/21/21	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**S**  
**2106263-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0383	06/17/21	06/18/21	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: **06/10/21 13:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		116 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0384	06/17/21	06/18/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**S**  
**2106263-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEG0107	07/07/21	07/10/21	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: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		52.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.1 %	40-150		"	"	"	"	

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

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.633	0.0100	mg/L	1	BEF0463	06/22/21	06/23/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 13:55**

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

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**S**  
**2106263-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	7.63	0.235	mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B
Barium	16.8	0.470	"	"	"	"	"	"
Cadmium	0.497	0.235	"	"	"	"	"	"
Copper	12.6	0.470	"	"	"	"	"	"
Lead	14.7	0.235	"	"	"	"	"	"
Nickel	21.3	0.470	"	"	"	"	"	"
Selenium	0.737	0.305	"	"	"	"	"	"
Silver	0.0284	0.0235	"	"	"	"	"	"
Zinc	81.8	0.470	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0410	06/17/21	06/18/21	EPA 7196A	

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

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	215	0.0587	mg/L dry	1	BEF0405	06/18/21	06/22/21	EPA 6020B	
Magnesium	83.7	0.0587	"	"	"	"	"	"	
Sodium	748	0.0587	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.0	0.00100	units	1	BEF0488	06/23/21	06/23/21	Calculation	

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

Date Sampled: **06/10/21 13:55**

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

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**S**  
**2106263-04 (Soil)**

**Summit Scientific**

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

% Solids	85.1	%	1	BEF0395	06/18/21	06/18/21	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.93	0.0100	mmhos/cm	1	BEF0427	06/21/21	06/21/21	EPA 120.1	

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

Date Sampled: **06/10/21 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.02		pH Units	1	BEF0426	06/21/21	06/21/21	EPA 9045D	

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1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**BG #1**  
**2106263-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	4.40	0.200		mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B	

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

Date Sampled: **06/10/21 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.7			%	1	BEF0395	06/18/21	06/18/21	Calculation	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**BG #2**  
**2106263-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	6.74	0.200		mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B	

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

Date Sampled: **06/10/21 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	84.6			%	1	BEF0395	06/18/21	06/18/21	Calculation	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**BG #3**  
**2106263-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	2.50	0.200		mg/kg dry	1	BEF0399	06/18/21	06/19/21	EPA 6020B	

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

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.5			%	1	BEF0395	06/18/21	06/18/21	Calculation	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

## 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 BEF0383 - EPA 5030 Soil MS

##### Blank (BEF0383-BLK1)

Prepared: 06/17/21 Analyzed: 06/18/21

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	0.0359		"	0.0400		89.8	23-173			
Surrogate: Toluene-d8	0.0457		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167			

##### LCS (BEF0383-BS1)

Prepared: 06/17/21 Analyzed: 06/18/21

Benzene	0.124	0.0020	mg/kg	0.100		124	70-130			
Toluene	0.0793	0.0050	"	0.100		79.3	70-130			
Ethylbenzene	0.0778	0.0050	"	0.100		77.8	70-130			
m,p-Xylene	0.151	0.010	"	0.200		75.6	70-130			
o-Xylene	0.0771	0.0050	"	0.100		77.1	70-130			
1,2,4-Trimethylbenzene	0.0788	0.0050	"	0.100		78.8	70-130			
1,3,5-Trimethylbenzene	0.0782	0.0050	"	0.100		78.2	70-130			
Naphthalene	0.0820	0.0038	"	0.100		82.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0266		"	0.0400		66.4	23-173			
Surrogate: Toluene-d8	0.0442		"	0.0400		110	20-170			
Surrogate: 4-Bromofluorobenzene	0.0362		"	0.0400		90.5	21-167			

##### Matrix Spike (BEF0383-MS1)

Source: 2106227-01

Prepared: 06/17/21 Analyzed: 06/18/21

Benzene	0.129	0.0020	mg/kg	0.100	ND	129	70-130			
Toluene	0.0793	0.0050	"	0.100	ND	79.3	70-130			
Ethylbenzene	0.0887	0.0050	"	0.100	ND	88.7	70-130			
m,p-Xylene	0.172	0.010	"	0.200	ND	85.9	70-130			
o-Xylene	0.0857	0.0050	"	0.100	ND	85.7	70-130			
1,2,4-Trimethylbenzene	0.0857	0.0050	"	0.100	ND	85.7	70-130			
1,3,5-Trimethylbenzene	0.0860	0.0050	"	0.100	ND	86.0	70-130			
Naphthalene	0.0912	0.0038	"	0.100	ND	91.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0308		"	0.0400		76.9	23-173			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.6	21-167			

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0383 - EPA 5030 Soil MS**

Matrix Spike Dup (BEF0383-MSD1)	Source: 2106227-01			Prepared: 06/17/21 Analyzed: 06/18/21						
Benzene	0.102	0.0020	mg/kg	0.100	ND	102	70-130	23.0	30	
Toluene	0.0833	0.0050	"	0.100	ND	83.3	70-130	5.02	30	
Ethylbenzene	0.0886	0.0050	"	0.100	ND	88.6	70-130	0.135	30	
m,p-Xylene	0.172	0.010	"	0.200	ND	85.8	70-130	0.105	30	
o-Xylene	0.0865	0.0050	"	0.100	ND	86.5	70-130	0.871	30	
1,2,4-Trimethylbenzene	0.0867	0.0050	"	0.100	ND	86.7	70-130	1.11	30	
1,3,5-Trimethylbenzene	0.0857	0.0050	"	0.100	ND	85.7	70-130	0.315	30	
Naphthalene	0.0920	0.0038	"	0.100	ND	92.0	70-130	0.851	30	
Surrogate: 1,2-Dichloroethane-d4	0.0308		"	0.0400		77.0	23-173			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.3	21-167			

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0384 - EPA 3550A**

**Blank (BEF0384-BLK1)**

Prepared: 06/17/21 Analyzed: 06/18/21

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

**LCS (BEF0384-BS1)**

Prepared: 06/17/21 Analyzed: 06/18/21

C10-C28 (DRO)	540	50	mg/kg	500	108	70-130
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**Matrix Spike (BEF0384-MS1)**

Source: 2106227-01

Prepared: 06/17/21 Analyzed: 06/18/21

C10-C28 (DRO)	491	50	mg/kg	500	16.2	94.9	70-130
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**Matrix Spike Dup (BEF0384-MSD1)**

Source: 2106227-01

Prepared: 06/17/21 Analyzed: 06/18/21

C10-C28 (DRO)	479	50	mg/kg	500	16.2	92.5	70-130	2.50	20
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Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

### PAH by EPA Method 8270D SIM - Quality Control

#### Summit Scientific

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

#### Batch BEG0107 - EPA 5030 Soil MS

##### Blank (BEG0107-BLK1)

Prepared: 07/07/21 Analyzed: 07/10/21

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	0.0188		"	0.0333		56.4	40-150			
Surrogate: Fluoranthene-d10	0.0241		"	0.0333		72.3	40-150			

##### LCS (BEG0107-BS1)

Prepared: 07/07/21 Analyzed: 07/10/21

Acenaphthene	0.0307	0.00500	mg/kg	0.0333	92.1	31-137
Anthracene	0.0306	0.00500	"	0.0333	91.9	30-120
Benzo (a) anthracene	0.0305	0.00500	"	0.0333	91.6	30-120
Benzo (a) pyrene	0.0298	0.00500	"	0.0333	89.4	30-120
Benzo (b) fluoranthene	0.0311	0.00500	"	0.0333	93.3	30-120
Benzo (k) fluoranthene	0.0308	0.00500	"	0.0333	92.3	30-120
Chrysene	0.0298	0.00500	"	0.0333	89.5	30-120
Dibenz (a,h) anthracene	0.0131	0.00500	"	0.0333	39.3	30-120
Fluoranthene	0.0293	0.00500	"	0.0333	87.9	30-120
Fluorene	0.0314	0.00500	"	0.0333	94.1	30-120
Indeno (1,2,3-cd) pyrene	0.0128	0.00500	"	0.0333	38.4	30-120
Pyrene	0.0305	0.00500	"	0.0333	91.4	35-142
1-Methylnaphthalene	0.0279	0.00500	"	0.0333	83.6	35-142
2-Methylnaphthalene	0.0256	0.00500	"	0.0333	76.8	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0261		"	0.0333	78.4	40-150
Surrogate: Fluoranthene-d10	0.0316		"	0.0333	94.7	40-150

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

### PAH by EPA Method 8270D SIM - Quality Control

#### Summit Scientific

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

#### Batch BEG0107 - EPA 5030 Soil MS

##### Matrix Spike (BEG0107-MS1)

Source: 2106263-01

Prepared: 07/07/21 Analyzed: 07/10/21

Acenaphthene	0.0272	0.00500	mg/kg	0.0333	ND	81.6	31-137		
Anthracene	0.0274	0.00500	"	0.0333	ND	82.2	30-120		
Benzo (a) anthracene	0.0279	0.00500	"	0.0333	ND	83.6	30-120		
Benzo (a) pyrene	0.0269	0.00500	"	0.0333	ND	80.6	30-120		
Benzo (b) fluoranthene	0.0367	0.00500	"	0.0333	ND	110	30-120		
Benzo (k) fluoranthene	0.0338	0.00500	"	0.0333	ND	101	30-120		
Chrysene	0.0267	0.00500	"	0.0333	ND	80.2	30-120		
Dibenz (a,h) anthracene	0.0112	0.00500	"	0.0333	ND	33.7	30-120		
Fluoranthene	0.0275	0.00500	"	0.0333	ND	82.4	30-120		
Fluorene	0.0281	0.00500	"	0.0333	ND	84.2	30-120		
Indeno (1,2,3-cd) pyrene	0.0110	0.00500	"	0.0333	ND	33.1	30-120		
Pyrene	0.0273	0.00500	"	0.0333	ND	81.9	35-142		
1-Methylnaphthalene	0.0228	0.00500	"	0.0333	ND	68.4	15-130		
2-Methylnaphthalene	0.0230	0.00500	"	0.0333	ND	69.0	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0233		"	0.0333		70.0	40-150		
Surrogate: Fluoranthene-d10	0.0293		"	0.0333		87.8	40-150		

##### Matrix Spike Dup (BEG0107-MSD1)

Source: 2106263-01

Prepared: 07/07/21 Analyzed: 07/10/21

Acenaphthene	0.0256	0.00500	mg/kg	0.0333	ND	76.8	31-137	6.02	30
Anthracene	0.0269	0.00500	"	0.0333	ND	80.8	30-120	1.79	30
Benzo (a) anthracene	0.0289	0.00500	"	0.0333	ND	86.6	30-120	3.47	30
Benzo (a) pyrene	0.0274	0.00500	"	0.0333	ND	82.3	30-120	2.06	30
Benzo (b) fluoranthene	0.0373	0.00500	"	0.0333	ND	112	30-120	1.76	30
Benzo (k) fluoranthene	0.0338	0.00500	"	0.0333	ND	101	30-120	0.0977	30
Chrysene	0.0270	0.00500	"	0.0333	ND	81.1	30-120	1.16	30
Dibenz (a,h) anthracene	0.0123	0.00500	"	0.0333	ND	36.8	30-120	8.91	30
Fluoranthene	0.0266	0.00500	"	0.0333	ND	79.8	30-120	3.26	30
Fluorene	0.0273	0.00500	"	0.0333	ND	81.8	30-120	2.86	30
Indeno (1,2,3-cd) pyrene	0.0119	0.00500	"	0.0333	ND	35.7	30-120	7.62	30
Pyrene	0.0274	0.00500	"	0.0333	ND	82.3	35-142	0.479	30
1-Methylnaphthalene	0.0238	0.00500	"	0.0333	ND	71.3	15-130	4.18	50
2-Methylnaphthalene	0.0223	0.00500	"	0.0333	ND	66.8	15-130	3.14	50
Surrogate: 2-Methylnaphthalene-d10	0.0234		"	0.0333		70.2	40-150		
Surrogate: Fluoranthene-d10	0.0287		"	0.0333		86.0	40-150		

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0463 - EPA 3050B**

**Blank (BEF0463-BLK1)**

Prepared: 06/22/21 Analyzed: 06/23/21

Boron ND 0.0100 mg/L

**LCS (BEF0463-BS1)**

Prepared: 06/22/21 Analyzed: 06/23/21

Boron 5.04 0.0100 mg/L 5.00 101 80-120

**Duplicate (BEF0463-DUP1)**

**Source: 2106263-01**

Prepared: 06/22/21 Analyzed: 06/23/21

Boron 0.529 0.0100 mg/L 0.535 0.969 20

**Matrix Spike (BEF0463-MS1)**

**Source: 2106263-01**

Prepared: 06/22/21 Analyzed: 06/23/21

Boron 5.31 0.0100 mg/L 5.00 0.535 95.6 75-125

**Matrix Spike Dup (BEF0463-MSD1)**

**Source: 2106263-01**

Prepared: 06/22/21 Analyzed: 06/23/21

Boron 5.58 0.0100 mg/L 5.00 0.535 101 75-125 4.90 25

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0399 - EPA 3050B**

**Blank (BEF0399-BLK1)**

Prepared: 06/18/21 Analyzed: 06/19/21

Arsenic	ND	0.200	mg/kg wet
Arsenic	ND	0.200	"
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 (BEF0399-BS1)**

Prepared: 06/18/21 Analyzed: 06/19/21

Arsenic	39.6	0.200	mg/kg wet	40.0	99.0	80-120
Arsenic	39.6	0.200	"	40.0	99.0	80-120
Barium	36.9	0.400	"	40.0	92.2	80-120
Cadmium	2.00	0.200	"	2.00	100	80-120
Copper	37.0	0.400	"	40.0	92.4	80-120
Lead	18.8	0.200	"	20.0	94.2	80-120
Nickel	37.0	0.400	"	40.0	92.5	80-120
Selenium	3.83	0.260	"	4.00	95.7	80-120
Silver	1.96	0.0200	"	2.00	98.0	80-120
Zinc	39.1	0.400	"	40.0	97.6	80-120

**Duplicate (BEF0399-DUP1)**

Source: 2106263-01

Prepared: 06/18/21 Analyzed: 06/19/21

Arsenic	5.25	0.243	mg/kg dry	4.52	14.9	20
Arsenic	5.25	0.200	"	4.52	14.9	20
Barium	105	0.486	"	109	3.53	20
Cadmium	0.426	0.243	"	0.405	5.22	20
Copper	16.7	0.486	"	16.3	2.50	20
Lead	11.9	0.243	"	13.7	13.5	20
Nickel	20.5	0.486	"	19.3	6.39	20
Selenium	1.29	0.316	"	1.07	18.4	20
Silver	0.0376	0.0243	"	0.0388	3.08	20
Zinc	55.2	0.486	"	54.0	2.16	20

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0399 - EPA 3050B**

**Matrix Spike (BEF0399-MS1)**

Source: 2106263-01

Prepared: 06/18/21 Analyzed: 06/19/21

Arsenic	45.9	0.200	mg/kg dry	48.6	4.52	85.1	75-125
Arsenic	45.9	0.243	"	48.6	4.52	85.1	75-125
Barium	159	0.486	"	48.6	109	104	75-125
Cadmium	2.60	0.243	"	2.43	0.405	90.2	75-125
Copper	56.7	0.486	"	48.6	16.3	83.0	75-125
Lead	32.7	0.243	"	24.3	13.7	78.3	75-125
Nickel	62.1	0.486	"	48.6	19.3	88.0	75-125
Selenium	5.15	0.316	"	4.86	1.07	83.9	75-125
Silver	2.19	0.0243	"	2.43	0.0388	88.3	75-125
Zinc	98.0	0.486	"	48.6	54.0	90.5	75-125

**Matrix Spike Dup (BEF0399-MSD1)**

Source: 2106263-01

Prepared: 06/18/21 Analyzed: 06/19/21

Arsenic	49.6	0.243	mg/kg dry	48.6	4.52	92.7	75-125	7.78	25
Arsenic	49.6	0.200	"	48.6	4.52	92.7	75-125	7.78	25
Barium	169	0.486	"	48.6	109	123	75-125	5.81	25
Cadmium	2.80	0.243	"	2.43	0.405	98.4	75-125	7.36	25
Copper	61.6	0.486	"	48.6	16.3	93.1	75-125	8.34	25
Lead	34.2	0.243	"	24.3	13.7	84.5	75-125	4.56	25
Nickel	67.3	0.486	"	48.6	19.3	98.6	75-125	8.01	25
Selenium	5.36	0.316	"	4.86	1.07	88.1	75-125	3.92	25
Silver	2.40	0.0243	"	2.43	0.0388	97.1	75-125	9.35	25
Zinc	106	0.486	"	48.6	54.0	107	75-125	7.93	25

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation  
Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0410 - 3060A Mod**

**Blank (BEF0410-BLK1)**

Prepared: 06/17/21 Analyzed: 06/18/21

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BEF0410-BS1)**

Prepared: 06/17/21 Analyzed: 06/18/21

Chromium, Hexavalent 26.2 0.30 mg/kg wet 25.0 105 80-120

**Duplicate (BEF0410-DUP1)**

**Source: 2106227-01**

Prepared: 06/17/21 Analyzed: 06/18/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BEF0410-MS1)**

**Source: 2106227-01**

Prepared: 06/17/21 Analyzed: 06/18/21

Chromium, Hexavalent 32.5 0.30 mg/kg dry 31.8 ND 102 75-125

**Matrix Spike Dup (BEF0410-MSD1)**

**Source: 2106227-01**

Prepared: 06/17/21 Analyzed: 06/18/21

Chromium, Hexavalent 32.5 0.30 mg/kg dry 31.8 ND 102 75-125 0.00 20

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0405 - General Preparation**

**Blank (BEF0405-BLK1)**

Prepared: 06/18/21 Analyzed: 06/21/21

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

**LCS (BEF0405-BS1)**

Prepared: 06/18/21 Analyzed: 06/21/21

Calcium	5.43	0.0500	mg/L wet	5.00	109	70-130
Magnesium	5.64	0.0500	"	5.00	113	70-130
Sodium	5.25	0.0500	"	5.00	105	70-130

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0395 - General Preparation**

**Duplicate (BEF0395-DUP1)**

**Source: 2106263-01**

**Prepared & Analyzed: 06/18/21**

% Solids	82.5	%	82.2	0.357	20
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Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0427 - General Preparation**

**Blank (BEF0427-BLK1)**

Prepared & Analyzed: 06/21/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEF0427-BS1)**

Prepared & Analyzed: 06/21/21

Specific Conductance (EC) 0.142 0.0100 mmhos/cm 0.150 94.9 90-110

**Duplicate (BEF0427-DUP1)**

**Source: 2106261-02**

Prepared & Analyzed: 06/21/21

Specific Conductance (EC) 1.74 0.0100 mmhos/cm 1.74 0.00 20

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

**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 BEF0426 - General Preparation**

**LCS (BEF0426-BS1)**

Prepared & Analyzed: 06/21/21

pH	9.24	pH Units	9.21	100	95-105
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**Duplicate (BEF0426-DUP1)**

**Source: 2106261-02**

Prepared & Analyzed: 06/21/21

pH	8.12	pH Units	8.11	0.123	20
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Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: RMF Consolidation

Project Number: [none]  
Project Manager: Max Knop

**Reported:**  
07/12/21 15:58

### Notes and Definitions

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