

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 21, 2021

Max Knop

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: George R Keifer Background Samples

Work Order #2105305

Enclosed are the results of analyses for samples received by Summit Scientific on 05/19/21 15:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: George R Keifer Background Samples

Project Number: [none]
Project Manager: Max Knop

Reported:
05/21/21 16:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG1	2105305-01	Soil	05/18/21 10:00	05/19/21 15:20
BG2	2105305-02	Soil	05/18/21 10:00	05/19/21 15:20
BG3	2105305-03	Soil	05/18/21 10:00	05/19/21 15:20

Summit Scientific

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2105305

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client:	KP Kauffman		
Address:	1675 Broadway, Suite 2800		
City/State/Zip:	Denver, CO 80202		
Phone:	303-825-4822	Fax:	303-825-4825
Sampler Name:	KWS		

Project Manager:	Max Knop
E-Mail:	mknop@kpk.com; mduran@kpk.com
Project Name:	George R Kiefer Background Samples
Project Number:	

				Preservative				Matrix				Analyze For:								Special Instructions
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	Arsenic								
BG 1	5/18/2021	10:00	1						x				x							
BG 2	5/18/2021	10:00	1						x				x							
BG 3	5/18/2021	10:00	1						x				x							
												New inorganic method								Notes:
Relinquished by:		Date/Time:		Received by:		Date/Time:		Turn Around Time (Check)												
<i>Udolphani Eil</i>		<i>5/19/21 10:10</i>		<i>Jub Bu</i>		<i>5/19/21 1520</i>		Same Day <input type="checkbox"/>								72 Hours <input type="checkbox"/>				
								24 Hours <input type="checkbox"/>								Standard <input type="checkbox"/>				
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 Hours <input checked="" type="checkbox"/>												
Relinquished by:		Date/Time:		Received in Lab by:		Date/Time:		Sample Integrity:												
								Temperature Upon Receipt: <i>5</i>												
								Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>												

2105305

Sample Receipt Checklist

S2 Work Order _____

Client: KP Kauffman Client Project ID George R Kiefer Background Samples

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 ⁽¹⁾ ? 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"/>	<u>On ice.</u>
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>48 hours</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.JB
Custodian Printed Name or Initials
Signature of Custodian5/19/21
Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

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Project Number: [none]
Project Manager: Max Knop

Reported:
05/21/21 16:20

BG1
2105305-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **05/18/21 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	5.77	0.200		mg/kg dry	1	BEE0369	05/20/21	05/21/21	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/18/21 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	78.2			%	1	BEE0358	05/20/21	05/20/21	Calculation	

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Reported:
05/21/21 16:20

BG2
2105305-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **05/18/21 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	5.86	0.200		mg/kg dry	1	BEE0369	05/20/21	05/21/21	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/18/21 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	78.8			%	1	BEE0358	05/20/21	05/20/21	Calculation	

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Reported:
05/21/21 16:20

BG3
2105305-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **05/18/21 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	6.29	0.200		mg/kg dry	1	BEE0369	05/20/21	05/21/21	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/18/21 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.7			%	1	BEE0358	05/20/21	05/20/21	Calculation	

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Total Metals by EPA 6020B - Quality Control

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

Batch BEE0369 - EPA 3050B

Blank (BEE0369-BLK1)

Prepared: 05/20/21 Analyzed: 05/21/21

Arsenic ND 0.200 mg/kg wet

LCS (BEE0369-BS1)

Prepared: 05/20/21 Analyzed: 05/21/21

Arsenic 42.9 0.200 mg/kg wet 40.0 107 80-120

Duplicate (BEE0369-DUP1)

Source: 2105305-01

Prepared: 05/20/21 Analyzed: 05/21/21

Arsenic 5.11 0.200 mg/kg dry 5.77 12.2 20

Matrix Spike (BEE0369-MS1)

Source: 2105305-01

Prepared: 05/20/21 Analyzed: 05/21/21

Arsenic 57.7 0.200 mg/kg dry 51.2 5.77 101 75-125

Matrix Spike Dup (BEE0369-MSD1)

Source: 2105305-01

Prepared: 05/20/21 Analyzed: 05/21/21

Arsenic 56.5 0.200 mg/kg dry 51.2 5.77 99.1 75-125 2.12 25

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Reported:
05/21/21 16:20

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

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

Batch BEE0358 - General Preparation

Duplicate (BEE0358-DUP1)

Source: 2105300-01

Prepared & Analyzed: 05/20/21

% Solids	82.6	%	82.4	0.244	20
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Project Number: [none]
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Reported:
05/21/21 16:20

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