

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 15, 2021

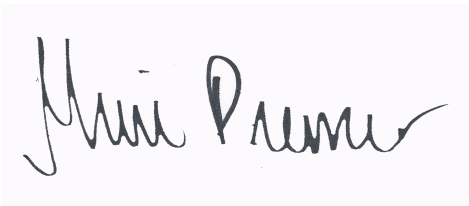
Ty Smith
Lesair Environmental
11786 Shaffer Place Suite 210
Littleton, CO 80127

RE: PADCO M-R Prework

Work Order #2106125

Enclosed are the results of analyses for samples received by Summit Scientific on 06/07/21 09:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Muri Premier For Paul Shrewsbury
President



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: PADCO M-R Prework
Project Number: Miller-Rediess #1-A Pit
Project Manager: Ty Smith

Reported:
06/15/21 17:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
4B-96	2106125-02	Soil	06/05/21 10:50	06/07/21 09:00

Summit Scientific

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



2106125

Contact/Billing Information	
Name:	Lesair Environmental
Address:	11786 Shaffer Place, Unit 210
City/State/Zip:	Littleton, CO 80127
Phone Number:	303-904-2525
Fax Number:	
Project Manager:	Ty Smith
Email:	TySmith@Lesair.com

Notes:

HOLD #4A-60 UNTIL APPROVED BY LESAIR

INVOICE PADCO

☒ Standard Turn Around ☐ RUSH TURN AROUND

Project Name:	PADCO M-R Pework	Sampled By:	Ty Smith
Project Number:		Signature:	<i>[Signature]</i>
Sample Location:	Miller-Rediess #1-A <i>PIT</i>	Date:	06/05/2021

Sample Information					Matrix*	Preservation							Analysis																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Sample Name	Date Sampled	Time Sampled	Number of Samples	G=Grab, C= Composite		HNO ₃	HCl	NaOH	H ₂ SO ₄	Methanol	None	Other (Specify)	9/15 EC	9/15 SAR	9/15 pH	9/15 BORON	9/15 METALS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

Relinquished By:	<i>[Signature]</i>	Date:	06/07/2021	Time:	9:00
Received By:	<i>[Signature]</i>	Date:	6/7/21	Time:	9:00

*Choose from: SL- Sludge, DW-Drinking Water, GW- Groundwater, S- Soil/Solids, WW- Wastewater, Specify Other

Temp 5.5

2106125

Sample Receipt Checklist

S2 Work Order _____

Client: Lesqik Client Project ID: PADCO M-R PreworkShipped Via: ☒ H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)	5.5
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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.	/			
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
If custody seals are present, are they intact ⁽¹⁾ ?	/		/	
Are samples with holding times due within 48 hours sample due within 48 hours present?		/		
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			/	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			/	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			/	
If dissolved metals are requested, were samples field filtered?			/	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Custodian Printed Name or Initials

Signature of Custodian

Date/Time



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4B-96
2106125-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	1.29	0.0100	mg/L	1	BEF0262	06/11/21	06/13/21	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.631	0.248	mg/kg dry	1	BEF0217	06/09/21	06/11/21	EPA 6020B	
Barium	68.4	0.497	"	"	"	"	"	"	
Cadmium	ND	0.248	"	"	"	"	"	"	
Copper	3.13	0.497	"	"	"	"	"	"	
Lead	4.79	0.248	"	"	"	"	"	"	
Nickel	3.96	0.497	"	"	"	"	"	"	
Selenium	0.394	0.323	"	"	"	"	"	"	
Silver	ND	0.0248	"	"	"	"	"	"	
Zinc	16.0	0.497	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0223	06/09/21	06/10/21	EPA 7196A	

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

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	12.6	0.0621	mg/L dry	1	BEF0245	06/10/21	06/14/21	EPA 6020B	
Magnesium	4.71	0.0621	"	"	"	"	"	"	
Sodium	1600	0.0621	"	"	"	"	"	"	

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4B-96
2106125-02 (Soil)

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Calculated Analysis

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	97.7	0.00100	units	1	BEF0325	06/15/21	06/15/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.5		%	1	BEF0164	06/08/21	06/09/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.59	0.0100	mmhos/cm	1	BEF0270	06/11/21	06/11/21	EPA 120.1	

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

Date Sampled: **06/05/21 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.06		pH Units	1	BEF0269	06/11/21	06/11/21	EPA 9045D	

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Reported:
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Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control

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

Batch BEF0262 - EPA 3050B

Blank (BEF0262-BLK1)

Prepared: 06/11/21 Analyzed: 06/13/21

Boron ND 0.0100 mg/L

LCS (BEF0262-BS1)

Prepared: 06/11/21 Analyzed: 06/13/21

Boron 5.26 0.0100 mg/L 5.00 105 80-120

Duplicate (BEF0262-DUP1)

Source: 2106116-02

Prepared: 06/11/21 Analyzed: 06/13/21

Boron 0.173 0.0100 mg/L 0.204 16.2 20

Matrix Spike (BEF0262-MS1)

Source: 2106116-02

Prepared: 06/11/21 Analyzed: 06/13/21

Boron 5.19 0.0100 mg/L 5.00 0.204 99.7 75-125

Matrix Spike Dup (BEF0262-MSD1)

Source: 2106116-02

Prepared: 06/11/21 Analyzed: 06/13/21

Boron 5.27 0.0100 mg/L 5.00 0.204 101 75-125 1.64 25

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Project Number: Miller-Rediess #1-A Pit
Project Manager: Ty Smith

Reported:
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Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BEF0217 - EPA 3050B

Blank (BEF0217-BLK1)

Prepared: 06/09/21 Analyzed: 06/11/21

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 (BEF0217-BS1)

Prepared: 06/09/21 Analyzed: 06/11/21

Arsenic	41.7	0.200	mg/kg wet	40.0	104	80-120
Barium	39.6	0.400	"	40.0	99.1	80-120
Cadmium	1.98	0.200	"	2.00	98.8	80-120
Copper	38.7	0.400	"	40.0	96.8	80-120
Lead	20.4	0.200	"	20.0	102	80-120
Nickel	37.6	0.400	"	40.0	94.1	80-120
Selenium	3.91	0.260	"	4.00	97.7	80-120
Silver	1.92	0.0200	"	2.00	96.2	80-120
Zinc	41.1	0.400	"	40.0	103	80-120

Duplicate (BEF0217-DUP1)

Source: 2105198-09

Prepared: 06/09/21 Analyzed: 06/11/21

Arsenic	2.75	0.221	mg/kg dry	2.94	6.60	20
Barium	64.9	0.443	"	68.3	5.17	20
Cadmium	0.132	0.221	"	0.137	3.80	20
Copper	9.49	0.443	"	9.62	1.41	20
Lead	7.48	0.221	"	9.08	19.3	20
Nickel	9.62	0.443	"	9.43	1.98	20
Selenium	3.20	0.288	"	3.15	1.32	20
Silver	0.0651	0.0221	"	0.0644	1.05	20
Zinc	36.4	0.443	"	36.9	1.34	20

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Reported:
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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 BEF0217 - EPA 3050B

Matrix Spike (BEF0217-MS1)

Source: 2105198-09

Prepared: 06/09/21 Analyzed: 06/11/21

Arsenic	46.9	0.221	mg/kg dry	44.3	2.94	99.3	75-125
Barium	121	0.443	"	44.3	68.3	119	75-125
Cadmium	2.30	0.221	"	2.21	0.137	97.8	75-125
Copper	53.8	0.443	"	44.3	9.62	99.7	75-125
Lead	29.6	0.221	"	22.1	9.08	92.7	75-125
Nickel	52.1	0.443	"	44.3	9.43	96.4	75-125
Selenium	6.69	0.288	"	4.43	3.15	80.0	75-125
Silver	2.19	0.0221	"	2.21	0.0644	95.8	75-125
Zinc	81.8	0.443	"	44.3	36.9	102	75-125

Matrix Spike Dup (BEF0217-MSD1)

Source: 2105198-09

Prepared: 06/09/21 Analyzed: 06/11/21

Arsenic	46.7	0.221	mg/kg dry	44.3	2.94	98.8	75-125	0.485	25
Barium	110	0.443	"	44.3	68.3	93.2	75-125	10.1	25
Cadmium	2.29	0.221	"	2.21	0.137	97.2	75-125	0.502	25
Copper	52.9	0.443	"	44.3	9.62	97.8	75-125	1.61	25
Lead	29.5	0.221	"	22.1	9.08	92.2	75-125	0.350	25
Nickel	51.3	0.443	"	44.3	9.43	94.6	75-125	1.53	25
Selenium	6.83	0.288	"	4.43	3.15	83.0	75-125	2.00	25
Silver	2.17	0.0221	"	2.21	0.0644	95.1	75-125	0.779	25
Zinc	87.6	0.443	"	44.3	36.9	115	75-125	6.85	25

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Project Number: Miller-Rediess #1-A Pit
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Reported:
06/15/21 17:28

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 BEF0223 - 3060A Mod

Blank (BEF0223-BLK1)

Prepared: 06/09/21 Analyzed: 06/10/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEF0223-BS1)

Prepared: 06/09/21 Analyzed: 06/10/21

Chromium, Hexavalent 22.2 0.30 mg/kg wet 25.0 89.0 80-120

Duplicate (BEF0223-DUP1)

Source: 2106098-01

Prepared: 06/09/21 Analyzed: 06/10/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEF0223-MS1)

Source: 2106098-01

Prepared: 06/09/21 Analyzed: 06/10/21

Chromium, Hexavalent 25.4 0.30 mg/kg dry 29.2 ND 87.0 75-125

Matrix Spike Dup (BEF0223-MSD1)

Source: 2106098-01

Prepared: 06/09/21 Analyzed: 06/10/21

Chromium, Hexavalent 25.4 0.30 mg/kg dry 29.2 ND 87.0 75-125 0.00 20

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Project: PADCO M-R Prework
Project Number: Miller-Rediess #1-A Pit
Project Manager: Ty Smith

Reported:
06/15/21 17:28

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 BEF0245 - General Preparation

Blank (BEF0245-BLK1)

Prepared: 06/10/21 Analyzed: 06/13/21

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

LCS (BEF0245-BS1)

Prepared: 06/10/21 Analyzed: 06/13/21

Calcium	5.16	0.0500	mg/L wet	5.00	103	70-130
Magnesium	5.35	0.0500	"	5.00	107	70-130
Sodium	4.97	0.0500	"	5.00	99.4	70-130

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Project: PADCO M-R Prework
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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 BEF0164 - General Preparation

Duplicate (BEF0164-DUP1)		Source: 2104483-01			Prepared: 06/08/21 Analyzed: 06/09/21					
% Solids	90.8		%		92.0			1.33	20	

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Project: PADCO M-R Prework
Project Number: Miller-Rediess #1-A Pit
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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 BEF0270 - General Preparation

Blank (BEF0270-BLK1)

Prepared & Analyzed: 06/11/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEF0270-BS1)

Prepared & Analyzed: 06/11/21

Specific Conductance (EC) 0.158 0.0100 mmhos/cm 0.150 105 90-110

Duplicate (BEF0270-DUP1)

Source: 2105335-09

Prepared & Analyzed: 06/11/21

Specific Conductance (EC) 0.926 0.0100 mmhos/cm 0.928 0.205 20

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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 BEF0269 - General Preparation

LCS (BEF0269-BS1)

Prepared & Analyzed: 06/11/21

pH	9.21	pH Units	9.21	100	95-105
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Duplicate (BEF0269-DUP1)

Source: 2104483-01

Prepared & Analyzed: 06/11/21

pH	7.76	pH Units	7.78	0.257	20
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Project: PADCO M-R Prework
Project Number: Miller-Rediess #1-A Pit
Project Manager: Ty Smith

Reported:
06/15/21 17:28

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