

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 #2106133

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 that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: PADCO M-R Prework
Project Number: M-R Background #3
Project Manager: Ty Smith

Reported:
06/15/21 17:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
3A-60	2106133-01	Soil	06/03/21 16:00	06/07/21 09:00
3A-120	2106133-02	Soil	06/03/21 16:10	06/07/21 09:00

Summit Scientific

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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: _____

INVOICE PADCO

Standard Turn Around RUSH TURN AROUND

Project Name:	PADCO M-R PREWORK	Sampled By:	<i>Ty Smith</i>
Project Number:		Signature:	<i>Ty Smith</i>
Sample Location:	M-R BACKGROUND #3	Date:	06/03/2021

Sample Name	Sample Information					Matrix*	Preservation						Analysis			
	Date Sampled	Time Sampled	Number of Samples	G=Grab, C= Composite		HNO ₃	HCl	NaOH	H ₂ SO ₄	Methanol	None	Other (Specify)				
3A-60	06/03/21	16:00	2	G	SOIL						X	915 EC	X	X	X	X
3A-120	06/03/21	16:10	2	G	SOIL						X	915 SAR	X	X	X	X
												915 PH				
												915 Duran				

Relinquished By:	<i>Ty Smith</i>	Date:	06/07/2021	Time:	9:00
Received By:	<i>Michael</i>	Date:	6/7/21	Time:	9:00

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

Jemo 20.2

2106133

Sample Receipt Checklist

S2 Work Order _____

Client: Le Saix Client Project ID: PADCO M-R pre work

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

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

Temp (°C)	20.2
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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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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, 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 ⁽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.

mc
Custodian Printed Name or Initials

mc
Signature of Custodian

6/7/21
Date/Time



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3A-60
2106133-01 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/03/21 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0414	0.0100	mg/L	1	BEF0262	06/11/21	06/13/21	EPA 6020B	

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

Date Sampled: **06/03/21 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	25.9	0.0569	mg/L dry	1	BEF0216	06/09/21	06/12/21	EPA 6020B	
Magnesium	11.7	0.0569	"	"	"	"	"	"	
Sodium	5.58	0.0569	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/03/21 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.229	0.00100	units	1	BEF0291	06/14/21	06/14/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/21 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9		%	1	BEF0164	06/08/21	06/09/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/03/21 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.266	0.0100	mmhos/cm	1	BEF0237	06/10/21	06/10/21	EPA 120.1	

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

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3A-60
2106133-01 (Soil)

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

Date Sampled: **06/03/21 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.12			pH Units	1	BEF0236	06/10/21	06/10/21	EPA 9045D	

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3A-120
2106133-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/03/21 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0216	0.0100	mg/L	1	BEF0262	06/11/21	06/13/21	EPA 6020B	

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

Date Sampled: **06/03/21 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	20.6	0.0650	mg/L dry	1	BEF0216	06/09/21	06/12/21	EPA 6020B	
Magnesium	14.1	0.0650	"	"	"	"	"	"	
Sodium	12.3	0.0650	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/03/21 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.512	0.00100	units	1	BEF0291	06/14/21	06/14/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/03/21 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	76.9		%	1	BEF0164	06/08/21	06/09/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/03/21 16:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.231	0.0100	mmhos/cm	1	BEF0237	06/10/21	06/10/21	EPA 120.1	

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

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3A-120
2106133-02 (Soil)

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

Date Sampled: **06/03/21 16:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.26			pH Units	1	BEF0236	06/10/21	06/10/21	EPA 9045D	

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

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

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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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
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Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BEF0216 - General Preparation

Blank (BEF0216-BLK1)

Prepared: 06/09/21 Analyzed: 06/12/21

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

LCS (BEF0216-BS1)

Prepared: 06/09/21 Analyzed: 06/12/21

Calcium	5.09	0.0500	mg/L wet	5.00	102	70-130				
Magnesium	5.35	0.0500	"	5.00	107	70-130				
Sodium	5.08	0.0500	"	5.00	102	70-130				

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Physical Parameters by APHA/ASTM/EPA Methods - Quality Control
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Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

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

Summit Scientific

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

Batch BEF0237 - General Preparation

Blank (BEF0237-BLK1)

Prepared & Analyzed: 06/10/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEF0237-BS1)

Prepared & Analyzed: 06/10/21

Specific Conductance (EC) 0.160 0.0100 mmhos/cm 0.150 107 90-110

Duplicate (BEF0237-DUP1)

Source: 2106099-01

Prepared & Analyzed: 06/10/21

Specific Conductance (EC) 0.527 0.0100 mmhos/cm 0.529 0.455 20

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Reported:
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Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BEF0236 - General Preparation

LCS (BEF0236-BS1)

Prepared & Analyzed: 06/10/21

pH 9.22 pH Units 9.21 100 95-105

Duplicate (BEF0236-DUP1)

Source: 2106099-01

Prepared & Analyzed: 06/10/21

pH 8.62 pH Units 8.63 0.116 20

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06/15/21 17:09

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