

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 18, 2021

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

RE: Gulley West Tank Area

Work Order #2102182

Enclosed are the results of analyses for samples received by Summit Scientific on 02/11/21 16:14. 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, stylized initial 'M'.

Muri Premer For Paul Shrewsbury  
President



Lesair Environmental  
11786 Shaffer Place Suite 210  
Littleton CO, 80127

Project: Gulley West Tank Area

Project Number: [none]  
Project Manager: Ty Smith

**Reported:**  
02/18/21 17:17

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WTB	2102182-01	Soil	02/11/21 10:30	02/11/21 16:14

Summit Scientific

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2102182

4653 Table Mountain Drive ♦ Golden, Colorado 80403  
303-277-9310

Page 1 of 1

Client: PADCO (LCSAIR) Project Manager: Ty Smith  
 Address: \_\_\_\_\_ E-Mail: TYSMITH@LCSAIR.COM  
 City/State/Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Project Name: GOLLY WEST TANK AREA  
 Sampler Name: WTB 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	SAR 915	EC 915	PH 915	BARON 915	PROPANO 915	GUTER 915					
1	WTB	2/11	10:30	1			X			X						X	X						
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

  

Relinquished by: <u>[Signature]</u> Date/Time: <u>2/11/14</u>	Received by: _____ Date/Time: _____	Turn Around Time (Check) Same Day _____ 72 hours <u>X</u> 24 hours _____ Standard _____ 48 hours _____ Sample Integrity: Temperature Upon Receipt: <u>6-8°</u> Samples Intact: <u>Yes</u> No	Notes:
Relinquished by: _____ Date/Time: _____	Received by: <u>[Signature]</u> Date/Time: <u>2.11.21</u>		
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: <u>11.14</u>		





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11786 Shaffer Place Suite 210  
Littleton CO, 80127

Project: Gulley West Tank Area

Project Number: [none]  
Project Manager: Ty Smith

**Reported:**  
02/18/21 17:17

**WTB**  
**2102182-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0215	02/13/21	02/14/21	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	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0214	02/13/21	02/14/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.8 %	30-150		"	"	"	"	

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

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**WTB**  
**2102182-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.926</b>	0.0100	mg/L	1	BEB0198	02/12/21	02/13/21	EPA 6020B	

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

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>32.2</b>	0.0578	mg/L dry	1	BEB0243	02/16/21	02/18/21	EPA 6020B	
<b>Magnesium</b>	<b>15.2</b>	0.0578	"	"	"	"	"	"	
<b>Sodium</b>	<b>38.6</b>	0.0578	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>1.40</b>	0.100	units	1	BEB0281	02/18/21	02/18/21	Calculation	

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

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>86.6</b>		%	1	BEB0193	02/12/21	02/12/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.592</b>	0.0100	mmhos/cm	1	BEB0268	02/17/21	02/17/21	EPA 120.1	

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

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Project Number: [none]  
 Project Manager: Ty Smith

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**WTB**  
**2102182-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **02/11/21 10:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.26</b>		pH Units	1	BEB0269	02/17/21	02/17/21	EPA 9045D	

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Project Number: [none]  
Project Manager: Ty Smith

**Reported:**  
02/18/21 17:17

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BEB0215 - EPA 5030 Soil MS**

**Blank (BEB0215-BLK1)**

Prepared & Analyzed: 02/13/21

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	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	23-173			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	21-167			

**LCS (BEB0215-BS1)**

Prepared & Analyzed: 02/13/21

Benzene	0.0747	0.0020	mg/kg	0.100		74.7	70-130			
Toluene	0.0907	0.0050	"	0.100		90.7	70-130			
Ethylbenzene	0.0929	0.0050	"	0.100		92.9	70-130			
m,p-Xylene	0.178	0.010	"	0.200		89.1	70-130			
o-Xylene	0.0902	0.0050	"	0.100		90.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0317		"	0.0400		79.4	23-173			
Surrogate: Toluene-d8	0.0385		"	0.0400		96.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	21-167			

**Matrix Spike (BEB0215-MS1)**

Source: 2102169-01

Prepared & Analyzed: 02/13/21

Benzene	0.0794	0.0020	mg/kg	0.100	ND	79.4	70-130			
Toluene	0.0922	0.0050	"	0.100	ND	92.2	70-130			
Ethylbenzene	0.0893	0.0050	"	0.100	ND	89.3	70-130			
m,p-Xylene	0.176	0.010	"	0.200	ND	88.1	70-130			
o-Xylene	0.0885	0.0050	"	0.100	ND	88.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0273		"	0.0400		68.3	23-173			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.0	21-167			

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Project Number: [none]  
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**Reported:**  
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BEB0215 - EPA 5030 Soil MS**

Matrix Spike Dup (BEB0215-MSD1)	Source: 2102169-01			Prepared & Analyzed: 02/13/21							
Benzene	0.0701	0.0020	mg/kg	0.100	ND	70.1	70-130	12.4	30		
Toluene	0.107	0.0050	"	0.100	ND	107	70-130	15.2	30		
Ethylbenzene	0.0969	0.0050	"	0.100	ND	96.9	70-130	8.09	30		
m,p-Xylene	0.194	0.010	"	0.200	ND	97.0	70-130	9.55	30		
o-Xylene	0.0970	0.0050	"	0.100	ND	97.0	70-130	9.12	30		
Surrogate: 1,2-Dichloroethane-d4	0.0257		"	0.0400		64.2	23-173				
Surrogate: Toluene-d8	0.0419		"	0.0400		105	20-170				
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167				

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Project Number: [none]  
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**Reported:**  
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**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BEB0214 - EPA 3550A**

**Blank (BEB0214-BLK1)**

Prepared: 02/13/21 Analyzed: 02/14/21

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

**LCS (BEB0214-BS1)**

Prepared: 02/13/21 Analyzed: 02/14/21

C10-C28 (DRO)	509	50	mg/kg	500	102	70-130				
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**Matrix Spike (BEB0214-MS1)**

Source: 2102156-01

Prepared: 02/13/21 Analyzed: 02/14/21

C10-C28 (DRO)	479	50	mg/kg	500	16.3	92.5	70-130			
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**Matrix Spike Dup (BEB0214-MSD1)**

Source: 2102156-01

Prepared: 02/13/21 Analyzed: 02/14/21

C10-C28 (DRO)	484	50	mg/kg	500	16.3	93.6	70-130	1.15	20	
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Project: Gulley West Tank Area

Project Number: [none]  
 Project Manager: Ty Smith

**Reported:**  
 02/18/21 17:17

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

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

**Batch BEB0198 - EPA 3050B**

**Blank (BEB0198-BLK1)**

Prepared & Analyzed: 02/12/21

Boron ND 0.0100 mg/L

**LCS (BEB0198-BS1)**

Prepared & Analyzed: 02/12/21

Boron 5.04 0.0100 mg/L 5.00 101 80-120

**Duplicate (BEB0198-DUP1)**

Source: 2101298-03

Prepared & Analyzed: 02/12/21

Boron 0.411 0.0100 mg/L 0.435 5.82 20

**Matrix Spike (BEB0198-MS1)**

Source: 2101298-03

Prepared & Analyzed: 02/12/21

Boron 4.59 0.0100 mg/L 5.00 0.435 83.1 75-125

**Matrix Spike Dup (BEB0198-MSD1)**

Source: 2101298-03

Prepared & Analyzed: 02/12/21

Boron 4.64 0.0100 mg/L 5.00 0.435 84.2 75-125 1.15 25

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Project: Gulley West Tank Area

Project Number: [none]  
 Project Manager: Ty Smith

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

**Summit Scientific**

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

**Batch BEB0243 - General Preparation**

**Blank (BEB0243-BLK1)**

Prepared: 02/16/21 Analyzed: 02/18/21

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

**LCS (BEB0243-BS1)**

Prepared: 02/16/21 Analyzed: 02/18/21

Calcium	5.24	0.0500	mg/L wet	5.00		105	70-130			
Magnesium	5.44	0.0500	"	5.00		109	70-130			
Sodium	5.11	0.0500	"	5.00		102	70-130			

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Project: Gulley West Tank Area

Project Number: [none]  
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**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

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

**Batch BEB0193 - General Preparation**

**Duplicate (BEB0193-DUP1)**

**Source: 2102171-01**

Prepared & Analyzed: 02/12/21

% Solids	75.3		%		75.5			0.274	20	
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Project: Gulley West Tank Area

Project Number: [none]  
 Project Manager: Ty Smith

**Reported:**  
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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 BEB0268 - General Preparation**

**Blank (BEB0268-BLK1)**

Prepared & Analyzed: 02/17/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEB0268-BS1)**

Prepared & Analyzed: 02/17/21

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

**Duplicate (BEB0268-DUP1)**

Source: 2102122-01

Prepared & Analyzed: 02/17/21

Specific Conductance (EC) 1.13 0.0100 mmhos/cm 1.21 6.83 20

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Project: Gulley West Tank Area

Project Number: [none]  
 Project Manager: Ty Smith

**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 BEB0269 - General Preparation**

**LCS (BEB0269-BS1)**

Prepared & Analyzed: 02/17/21

pH 9.30 pH Units 9.21 101 95-105

**Duplicate (BEB0269-DUP1)**

Source: 2102122-01

Prepared & Analyzed: 02/17/21

pH 8.59 pH Units 8.61 0.233 20

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Project: Gulley West Tank Area

Project Number: [none]  
Project Manager: Ty Smith

**Reported:**  
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### 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