

PADCO LLC

Remediation Project 15981

Gulley 1-D

Attachment B

Analytical Results

PRODUCED WATER PIT ANALYSIS

Prepared for:
PADCO LLC

Prepared by:
Lesair Environmental, Inc.
www.Lesair.com

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 05, 2021


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

RE: Gulley Pit

Work Order #2102045

Enclosed are the results of analyses for samples received by Summit Scientific on 02/03/21 09:10. 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 Michelle Clements
Technical Director



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

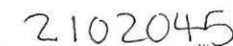
Reported:
02/05/21 11:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G1	2102045-01	Soil	02/02/21 16:45	02/03/21 09:10
G2	2102045-02	Soil	02/02/21 16:45	02/03/21 09:10
G3	2102045-03	Soil	02/02/21 16:45	02/03/21 09:10
GS1	2102045-04	Soil	02/02/21 16:30	02/03/21 09:10
GS2	2102045-05	Soil	02/02/21 16:30	02/03/21 09:10
GS3	2102045-06	Soil	02/02/21 16:30	02/03/21 09:10
GS4	2102045-07	Soil	02/02/21 16:30	02/03/21 09:10

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Notes:

* ~~48~~ 48 HR TIMING

* EACH COC SHOULD HAVE OWN RPT

8.6°C

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)						
G1	02/02/2021	16:45	1	G	S													
G2	02/02/2021	16:45	1	G	S						X		X	X	X	PS		
G3	02/02/2021	16:45	1	G	S						X		X	X	X	X		
GS1	02/02/2021	16:30	1	G	S						X		X	X	X	PS		
GS2	02/02/2021	16:30	1	G	S						X		X	X	X	X		
GS3	02/02/2021	16:30	1	G	S						X		X	X	X	X		
GS4	02/02/2021	16:30	1	G	S						X		X	X	X	X	Run for All	

Relinquished By:	<i>Erin M. M...</i>	Date:	2/3/2021	Time:	9:10
Received By:	<i>Michelle C...</i>	Date:	2/3/21	Time:	9:10

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

Sample Receipt Checklist

S2 Work Order 237-2102045

Client: Le Saie Client Project ID: Gulley A7 project

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

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

Temp (°C)	<u>8.6</u>
-----------	------------

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"/>			
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>			<u>48 hr turn</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<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

2/3/21
Date/Time



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

G1
2102045-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		133 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.4 %	30-150		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.54		pH Units	1	BEB0066	02/04/21	02/04/21	EPA 9045D	

Summit Scientific

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

G1
2102045-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

G2
2102045-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		121 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		108 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.3 %	30-150		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.62		pH Units	1	BEB0066	02/04/21	02/04/21	EPA 9045D	

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

G3
2102045-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		125 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.0 %	30-150		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.46		pH Units	1	BEB0066	02/04/21	02/04/21	EPA 9045D	

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

GS1
2102045-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		130 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.4 %	30-150		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.35		pH Units	1	BEB0066	02/04/21	02/04/21	EPA 9045D	

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

GS2
2102045-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		132 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.1 %	30-150		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.38		pH Units	1	BEB0066	02/04/21	02/04/21	EPA 9045D	

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit

Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

GS3
2102045-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		128 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.4 %	30-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13700	11.9	mg/kg dry	1	BEB0059	02/03/21	02/03/21	EPA 6020B	
Magnesium	2200	5.93	"	"	"	"	"	"	

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11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

GS3
2102045-06 (Soil)

Summit Scientific

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis

Sodium	2360	5.93	mg/kg dry	1	BEB0059	02/03/21	02/03/21	EPA 6020B
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Calculated Analysis

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.94	0.100	units	1	BEB0072	02/04/21	02/04/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.4		%	1	BEB0062	02/03/21	02/04/21	Calculation	
pH	9.11		pH Units	"	BEB0061	02/03/21	02/03/21	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.51	0.0100	mmhos/cm	1	BEB0060	02/03/21	02/03/21	EPA 120.1	

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Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

GS4
2102045-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEB0063	02/03/21	02/04/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		129 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEB0058	02/03/21	02/04/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.1 %	30-150		"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/02/21 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.36		pH Units	1	BEB0066	02/04/21	02/04/21	EPA 9045D	

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit

Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

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 BEB0063 - EPA 5030 Soil MS

Blank (BEB0063-BLK1)

Prepared & Analyzed: 02/03/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0509		"	0.0400		127	23-173			
Surrogate: Toluene-d8	0.0418		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		94.9	21-167			

LCS (BEB0063-BS1)

Prepared & Analyzed: 02/03/21

Benzene	0.0714	0.0020	mg/kg	0.100		71.4	70-130			
Toluene	0.0774	0.0050	"	0.100		77.4	70-130			
Ethylbenzene	0.0871	0.0050	"	0.100		87.1	70-130			
m,p-Xylene	0.167	0.010	"	0.200		83.4	70-130			
o-Xylene	0.0854	0.0050	"	0.100		85.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0391		"	0.0400		97.8	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167			

Matrix Spike (BEB0063-MS1)

Source: 2102045-01

Prepared & Analyzed: 02/03/21

Benzene	0.0778	0.0020	mg/kg	0.100	ND	77.8	70-130			
Toluene	0.0831	0.0050	"	0.100	ND	83.1	70-130			
Ethylbenzene	0.0963	0.0050	"	0.100	ND	96.3	70-130			
m,p-Xylene	0.181	0.010	"	0.200	ND	90.6	70-130			
o-Xylene	0.0910	0.0050	"	0.100	ND	91.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0382		"	0.0400		95.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.5	21-167			

Summit Scientific

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

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 BEB0063 - EPA 5030 Soil MS

Matrix Spike Dup (BEB0063-MSD1)	Source: 2102045-01			Prepared & Analyzed: 02/03/21						
Benzene	0.0732	0.0020	mg/kg	0.100	ND	73.2	70-130	6.00	30	
Toluene	0.0762	0.0050	"	0.100	ND	76.2	70-130	8.59	30	
Ethylbenzene	0.0917	0.0050	"	0.100	ND	91.7	70-130	4.88	30	
m,p-Xylene	0.172	0.010	"	0.200	ND	86.0	70-130	5.13	30	
o-Xylene	0.0879	0.0050	"	0.100	ND	87.9	70-130	3.45	30	
Surrogate: 1,2-Dichloroethane-d4	0.0381		"	0.0400		95.2	23-173			
Surrogate: Toluene-d8	0.0369		"	0.0400		92.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

Summit Scientific

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0058 - EPA 3550A

Blank (BEB0058-BLK1)

Prepared & Analyzed: 02/03/21

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

LCS (BEB0058-BS1)

Prepared: 02/03/21 Analyzed: 02/04/21

C10-C28 (DRO)	458	50	mg/kg	500	91.7	70-130
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Matrix Spike (BEB0058-MS1)

Source: 2102045-01

Prepared: 02/03/21 Analyzed: 02/04/21

C10-C28 (DRO)	483	50	mg/kg	500	37.0	89.3	70-130
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Matrix Spike Dup (BEB0058-MSD1)

Source: 2102045-01

Prepared: 02/03/21 Analyzed: 02/04/21

C10-C28 (DRO)	490	50	mg/kg	500	37.0	90.6	70-130	1.37	20
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Summit Scientific

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

Soluble Nutrients by EPA 6020/USDA60 6(2, 3A) - Dry Weight Basis - Quality Control

Summit Scientific

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

Batch BEB0059 - General Preparation

Blank (BEB0059-BLK1)

Prepared & Analyzed: 02/03/21

Calcium	ND	10.0	mg/kg wet
Magnesium	ND	5.00	"
Sodium	ND	5.00	"

LCS (BEB0059-BS1)

Prepared & Analyzed: 02/03/21

Calcium	523	10.0	mg/kg wet	500	105	70-130
Magnesium	599	5.00	"	500	120	70-130
Sodium	559	5.00	"	500	112	70-130

Duplicate (BEB0059-DUP1)

Source: 2102045-06

Prepared & Analyzed: 02/03/21

Calcium	13700	11.9	mg/kg dry	13700	0.137	20
Magnesium	2260	5.93	"	2200	2.55	20
Sodium	2410	5.93	"	2360	2.16	20

Matrix Spike (BEB0059-MS1)

Source: 2102045-06

Prepared & Analyzed: 02/03/21

Calcium	14200	11.9	mg/kg dry	593	13700	94.4	70-130
Magnesium	2790	5.93	"	593	2200	99.1	70-130
Sodium	2810	5.93	"	593	2360	75.0	70-130

Matrix Spike Dup (BEB0059-MSD1)

Source: 2102045-06

Prepared & Analyzed: 02/03/21

Calcium	14100	11.9	mg/kg dry	593	13700	76.1	70-130	0.768	25
Magnesium	2700	5.93	"	593	2200	84.2	70-130	3.21	25
Sodium	2970	5.93	"	593	2360	102	70-130	5.56	25

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

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

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

Batch BEB0061 - General Preparation

LCS (BEB0061-BS1)				Prepared & Analyzed: 02/03/21						
pH	9.32		pH Units	9.21	101	95-105				
Duplicate (BEB0061-DUP1)				Source: 2102045-06		Prepared & Analyzed: 02/03/21				
pH	9.15		pH Units	9.11		0.438	20			

Batch BEB0062 - General Preparation

Duplicate (BEB0062-DUP1)				Source: 2102045-06		Prepared: 02/03/21 Analyzed: 02/04/21				
% Solids	84.3		%	84.4		0.0711	20			

Batch BEB0066 - General Preparation

LCS (BEB0066-BS1)				Prepared & Analyzed: 02/04/21						
pH	9.30		pH Units	9.21	101	95-105				
Duplicate (BEB0066-DUP1)				Source: 2102010-01		Prepared & Analyzed: 02/04/21				
pH	8.23		pH Units	8.23		0.00	20			

Summit Scientific

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11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch BEB0060 - General Preparation

Blank (BEB0060-BLK1)

Prepared & Analyzed: 02/03/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEB0060-BS1)

Prepared & Analyzed: 02/03/21

Specific Conductance (EC) 0.762 0.0100 mmhos/cm 0.750 102 90-110

Duplicate (BEB0060-DUP1)

Source: 2102045-06

Prepared & Analyzed: 02/03/21

Specific Conductance (EC) 1.60 0.0100 mmhos/cm 1.51 5.57 20

Summit Scientific

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Gulley Pit
Project Number: [none]
Project Manager: Ty Smith

Reported:
02/05/21 11:20

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