

**PADCO LLC**

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**Remediation Project 15981**

Gulley 1-D

**Attachment D**

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**Laboratory Analysis**

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**SKIM PIT ANALYSIS**

**Prepared for:**  
PADCO LLC

**Prepared by:**  
Lesair Environmental, Inc.  
[www.Lesair.com](http://www.Lesair.com)

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 24, 2021

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

RE: Padco Gulley Skim Pit  
Work Order #2101217

Enclosed are the results of analyses for samples received by Summit Scientific on 01/22/21 17:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury For Michelle Clements  
Technical Director



Lesair Environmental  
11786 Shaffer Place Suite 210  
Littleton CO, 80127

Project: Padco Gulley Skim Pit  
Project Number: 45-0120-001  
Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP1	2101217-01	Soil	01/22/21 12:00	01/22/21 17:05
SP2	2101217-02	Soil	01/22/21 12:30	01/22/21 17:05
SP3	2101217-03	Soil	01/22/21 12:30	01/22/21 17:05
SP4	2101217-04	Soil	01/22/21 12:30	01/22/21 17:05

Summit Scientific

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Contact/Billing Information	
Name:	Lesair Environmental
Address:	11786 Shaffer Place, Suite 210
City/State/Zip:	Littleton, CO 80127
Phone Number:	303-904-2525
Fax Number:	303-904-7374
Project Manager:	Ty Smith
Email:	Ty.Smith@lesair.com

Notes: ~~\*\*\* RUSH \*\*\*~~  
- SAME DAY -

INVOICE PADCO

2101217

Project Name:	PADCO GULLEY SKIMPIT	Sampled By:	Ty Smith
Project Number:	45-0120-001	Signature:	[Signature]
Sample Location:	GULLEY 1-D	Date:	01/22/2021

Sample Information					Matrix*	Preservation							Analysis									
Sample Name	Date Sampled	Time Sampled	Number of Samples	G=Grab, C= Composite		HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify)	GOR	DOR	ORO	BTEX	PAH					
SP1	01/22	12:00	1	G	Soil						X		X	X	X	X	X					
SP2	01/22	12:30	1	G	Soil						X		X	X	X		X					
SP3	01/22	12:30	1	G	Soil						X		X	X	X		X					
SP4	01/22	12:30	1	G	Soil						X		X	X	X		X					

Relinquished By:	[Signature]	Date:	1/22/2021	Time:	12:05
Received By:	[Signature]	Date:	1-22-21	Time:	1705

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

5.5°

# Sample Receipt Checklist

S2 Work Order 2101217

Client: LeSair Client Project ID: Padco Gulley Skim Pit

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

Matrix (check all that apply):    Air    ☒ Soil/Solid    Water    Other: \_\_\_\_\_  
(Describe)

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

AT  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

1-22-21  
Date/Time



Lesair Environmental  
11786 Shaffer Place Suite 210  
Littleton CO, 80127

Project: Padco Gulley Skim Pit  
Project Number: 45-0120-001  
Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

**SP1**  
**2101217-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/22/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEA0255	01/22/21	01/22/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **01/22/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/22/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEA0254	01/22/21	01/22/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/22/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.2 %	30-150		"	"	"	"	

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

Date Sampled: **01/22/21 12:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.88		pH Units	1	BEA0252	01/22/21	01/22/21	EPA 9045D	

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01/24/21 22:06

**SP1**  
**2101217-01 (Soil)**

**Summit Scientific**

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

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Summit Scientific

A handwritten signature in black ink, appearing to be 'MSM'.

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Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

**SP2**  
**2101217-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Hydrocarbons	ND	0.50	mg/kg	1	BEA0255	01/22/21	01/22/21	EPA 8260B	

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		97.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.9 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEA0254	01/22/21	01/22/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		102 %	30-150		"	"	"	"	

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

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.16		pH Units	1	BEA0252	01/22/21	01/22/21	EPA 9045D	

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Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

**SP3**  
**2101217-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Hydrocarbons	ND	0.50	mg/kg	1	BEA0255	01/22/21	01/22/21	EPA 8260B	

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	87	50	mg/kg	1	BEA0254	01/22/21	01/22/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

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

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.86		pH Units	1	BEA0252	01/22/21	01/22/21	EPA 9045D	

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01/24/21 22:06

**SP4**  
**2101217-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Gasoline Range Hydrocarbons	ND	0.50	mg/kg	1	BEA0255	01/22/21	01/23/21	EPA 8260B	

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	57	50	mg/kg	1	BEA0254	01/22/21	01/22/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		114 %	30-150		"	"	"	"	

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

Date Sampled: **01/22/21 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.07		pH Units	1	BEA0252	01/22/21	01/22/21	EPA 9045D	

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Project Number: 45-0120-001  
Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

## 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 BEA0255 - EPA 5030 Soil MS

##### Blank (BEA0255-BLK1)

Prepared: 01/22/21 Analyzed: 01/23/21

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	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0373		"	0.0400		93.2		23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0373		"	0.0400		93.2		23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8		20-170			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8		20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0		21-167			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0		21-167			

##### LCS (BEA0255-BS1)

Prepared: 01/22/21 Analyzed: 01/23/21

Benzene	0.127	0.0020	mg/kg	0.100		127		70-130			
Toluene	0.115	0.0050	"	0.100		115		70-130			
Ethylbenzene	0.116	0.0050	"	0.100		116		70-130			
m,p-Xylene	0.237	0.010	"	0.200		118		70-130			
o-Xylene	0.111	0.0050	"	0.100		111		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0391		"	0.0400		97.6		23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0391		"	0.0400		97.6		23-173			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2		20-170			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2		20-170			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.7		21-167			
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.7		21-167			

##### Matrix Spike (BEA0255-MS1)

Source: 2101102-10

Prepared: 01/22/21 Analyzed: 01/23/21

Benzene	0.128	0.0020	mg/kg	0.100	0.00384	124		70-130			
Toluene	0.116	0.0050	"	0.100	ND	116		70-130			
Ethylbenzene	0.117	0.0050	"	0.100	ND	117		70-130			
m,p-Xylene	0.237	0.010	"	0.200	0.00366	117		70-130			
o-Xylene	0.114	0.0050	"	0.100	ND	114		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0400		102		23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0400		102		23-173			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.0		20-170			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.0		20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.0		21-167			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.0		21-167			

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Project Manager: Ty Smith

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01/24/21 22:06

**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 BEA0255 - EPA 5030 Soil MS**

Matrix Spike Dup (BEA0255-MSD1)	Source: 2101102-10			Prepared: 01/22/21 Analyzed: 01/23/21						
Benzene	0.126	0.0020	mg/kg	0.100	0.00384	122	70-130	1.30	30	
Toluene	0.115	0.0050	"	0.100	ND	115	70-130	0.571	30	
Ethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130	1.71	30	
m,p-Xylene	0.234	0.010	"	0.200	0.00366	115	70-130	1.43	30	
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130	2.62	30	
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0400		102	23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	20-170			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	21-167			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	21-167			

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Project: Padco Gulley Skim Pit  
Project Number: 45-0120-001  
Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

**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 BEA0254 - EPA 3550A**

**Blank (BEA0254-BLK1)**

Prepared & Analyzed: 01/22/21

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

**LCS (BEA0254-BS1)**

Prepared & Analyzed: 01/22/21

C10-C28 (DRO)	501	50	mg/kg	500	100	70-130
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**Matrix Spike (BEA0254-MS1)**

Source: 2101102-10

Prepared & Analyzed: 01/22/21

C10-C28 (DRO)	504	50	mg/kg	500	14.9	97.7	70-130
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**Matrix Spike Dup (BEA0254-MSD1)**

Source: 2101102-10

Prepared & Analyzed: 01/22/21

C10-C28 (DRO)	528	50	mg/kg	500	14.9	103	70-130	4.74	20
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Project Number: 45-0120-001  
Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

**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 BEA0252 - General Preparation**

**LCS (BEA0252-BS1)**

Prepared & Analyzed: 01/22/21

pH	9.30	pH Units	9.21	101	95-105
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**Duplicate (BEA0252-DUP1)**

**Source: 2101204-01**

Prepared & Analyzed: 01/22/21

pH	8.18	pH Units	8.17	0.122	20
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Project: Padco Gulley Skim Pit  
Project Number: 45-0120-001  
Project Manager: Ty Smith

**Reported:**  
01/24/21 22:06

### 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