

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 17, 2025

Ty Smith

Lesair Environmental

11786 Shaffer Place Suite 210

Littleton, CO 80127

RE: Williford - Rhoades Unit 5-4

Work Order #2503133

Enclosed are the results of analyses for samples received by Summit Scientific on 03/10/25 16:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Ru54-1a	2503133-01	Soil	03/08/25 16:00	03/10/25 16:40
Ru54-2a	2503133-02	Soil	03/08/25 16:00	03/10/25 16:40
Ru54-3a	2503133-03	Soil	03/08/25 16:00	03/10/25 16:40
Ru54-4a	2503133-04	Soil	03/08/25 16:00	03/10/25 16:40

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID: 2503133 Page 1 of 1

Client: <u>WILLIFORD ENERGY</u>		Send Data To: <u>TY SMITH</u>		Send Invoice To: <u>WILLIFORD ENERGY</u>	
Address: <u>LESAR ENVIRONMENTAL</u>		Project Manager: <u>TY SMITH</u>		Company: <u>WILLIFORD ENERGY</u>	
City/State/Zip:		E-Mail: <u>ty.smith@lesar.com</u>		Project Name/Location: <u>RHOADES UNIT 5-4</u>	
Phone: <u>303.903.4443</u>		Project Name: <u>RHOADES UNIT 5-4</u>		AFE#:	
Sampler Name: <u>TY SMITH</u>		Project Number:		PO/Billing Codes:	
				Contact: <u>DOUG STOUTS</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested					Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	915 GROUT/TEX	915 DR/GRD	915 SURFECT	915 DAEON		915 METALS
1	RU54-1a	3/8	16:00	2			X			X			X	X	X	X	X	
2													X	X	X	X	X	
3	RU54-2a			2			X			X			X	X	X	X	X	
4													X	X	X	X	X	
5	RU54-3a			2			X			X			X	X	X	X	X	
6													X	X	X	X	X	
7	RU54-4a			2			X			X			X	X	X	X	X	
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: <u>TY SMITH</u>	Date/Time: <u>3/10 @ 16:40</u>	Received by: <u>[Signature]</u>	Date/Time: <u>3/10/25 16:40</u>	TAT Business Days	Field DO	Notes: <u>HOLD ON 915 METALS</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days <input checked="" type="checkbox"/>	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <u>3.7</u>	Corrected Temperature	IR gun #: <u>2</u>	HNO3 lot #:	Standard <input checked="" type="checkbox"/>	Field Turb.	

S₂

S2 Work Order# 2503133

Sample Receipt Checklist

Client: Lesair/Willford Client Project ID: Rhoades Unit 5-4

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

Matrix (Circle all that apply) Air (Soil) Water/Other Temp (°C) 3.7 Thermometer # 2

Bottle ware (Circle all that apply) Glass (Jar) Vial/Amber/Poly/Other

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>			on ice
If custody seals are present, are they intact? ⁽¹⁾			<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>			
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD, Total Residual Chlorine(TRC)			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>			
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>			
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>			
Were samples provided in appropriate bottleware?	<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"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are any samples/bottles preserved (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Will any samples be performed outside of Summit Scientific? Note analysis in comments column		<input checked="" type="checkbox"/>		
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Control Form #: SRC-001

AS
Custodian Printed Name

3/10/25
Date/Time



Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

Ru54-1a
2503133-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIC0567	03/10/25	03/10/25	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	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0366	91.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0396	98.9 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIC0571	03/10/25	03/14/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.4	91.2 %		50-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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Project: Williford - Rhoades Unit 5-4

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Ru54-1a
2503133-01 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0574	03/11/25	03/11/25	EPA 6020B	

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.5	0.0500	mg/L dry	1	BIC0565	03/10/25	03/12/25	EPA 6020B	
Magnesium	10.6	0.0500	"	"	"	"	"	"	
Sodium	86.8	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.43	0.00100	units	1	BIC0748	03/13/25	03/13/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.7		%	1	BIC0577	03/11/25	03/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.750	0.0100	mmhos/cm	1	BIC0572	03/10/25	03/12/25	EPA 120.1	

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

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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
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Ru54-1a
2503133-01 (Soil)

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	6.99		pH Units	1	BIC0568	03/10/25	03/12/25	EPA 9045D	

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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
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Ru54-2a
2503133-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIC0567	03/10/25	03/11/25	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.014	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.0065	0.0050	"	"	"	"	"	"	
Naphthalene	0.015	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0359	89.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0396	98.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	680	50	mg/kg	1	BIC0571	03/10/25	03/14/25	EPA 8015M	
C28-C36 (ORO)	200	50	"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.80	78.4 %	50-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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Ru54-2a
2503133-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0574	03/11/25	03/11/25	EPA 6020B	

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	380	0.0500	mg/L dry	1	BIC0565	03/10/25	03/12/25	EPA 6020B	
Magnesium	17.6	0.0500	"	"	"	"	"	"	
Sodium	641	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.73	0.00100	units	1	BIC0748	03/13/25	03/13/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.7		%	1	BIC0577	03/11/25	03/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.87	0.0100	mmhos/cm	1	BIC0572	03/10/25	03/12/25	EPA 120.1	

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

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Ru54-2a
2503133-02 (Soil)

Summit Scientific

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.22		pH Units	1	BIC0568	03/10/25	03/12/25	EPA 9045D	

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Ru54-3a
2503133-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIC0567	03/10/25	03/11/25	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	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0358	89.5 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0395	98.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	620	50		mg/kg	1	BIC0571	03/10/25	03/14/25	EPA 8015M	
C28-C36 (ORO)	140	50		"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.3	98.7 %		50-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

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Ru54-3a
2503133-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0574	03/11/25	03/11/25	EPA 6020B	

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	859	0.0500	mg/L dry	1	BIC0565	03/10/25	03/12/25	EPA 6020B	
Magnesium	115	0.0500	"	"	"	"	"	"	
Sodium	218	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.85	0.00100	units	1	BIC0748	03/13/25	03/13/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.7		%	1	BIC0577	03/11/25	03/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.00	0.0100	mmhos/cm	1	BIC0572	03/10/25	03/12/25	EPA 120.1	

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

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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
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Reported:
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Ru54-3a
2503133-03 (Soil)

Summit Scientific

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	6.86		pH Units	1	BIC0568	03/10/25	03/12/25	EPA 9045D	

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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

Ru54-4a
2503133-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIC0567	03/10/25	03/11/25	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	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0376	94.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	99.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIC0571	03/10/25	03/14/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.4	83.3 %	50-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

Ru54-4a
2503133-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0574	03/11/25	03/11/25	EPA 6020B	

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	97.4	0.0500	mg/L dry	1	BIC0565	03/10/25	03/12/25	EPA 6020B	
Magnesium	14.0	0.0500	"	"	"	"	"	"	
Sodium	22.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.567	0.00100	units	1	BIC0748	03/13/25	03/13/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.6		%	1	BIC0577	03/11/25	03/11/25	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.600	0.0100	mmhos/cm	1	BIC0572	03/10/25	03/12/25	EPA 120.1	

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

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Lesair Environmental
 11786 Shaffer Place Suite 210
 Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
 Project Manager: Ty Smith

Reported:
 03/17/25 09:39

Ru54-4a
2503133-04 (Soil)

Summit Scientific

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

Date Sampled: **03/08/25 16:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	6.95		pH Units	1	BIC0568	03/10/25	03/12/25	EPA 9045D	

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

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 BIC0567 - EPA 5030 Soil MS

Blank (BIC0567-BLK1)

Prepared: 03/10/25 Analyzed: 03/11/25

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	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0357		"	0.0400		89.2	50-150				
Surrogate: Toluene-d8	0.0388		"	0.0400		97.0	50-150				
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	50-150				

LCS (BIC0567-BS1)

Prepared: 03/10/25 Analyzed: 03/11/25

Benzene	0.0981	0.0020	mg/kg	0.100		98.1	70-130				
Toluene	0.0921	0.0050	"	0.100		92.1	70-130				
Ethylbenzene	0.0974	0.0050	"	0.100		97.4	70-130				
m,p-Xylene	0.187	0.010	"	0.200		93.4	70-130				
o-Xylene	0.0932	0.0050	"	0.100		93.2	70-130				
1,2,4-Trimethylbenzene	0.0928	0.0050	"	0.100		92.8	70-130				
1,3,5-Trimethylbenzene	0.0900	0.0050	"	0.100		90.0	70-130				
Naphthalene	0.0988	0.0038	"	0.100		98.8	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.5	50-150				
Surrogate: Toluene-d8	0.0392		"	0.0400		98.1	50-150				
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	50-150				

Matrix Spike (BIC0567-MS1)

Source: 2503131-01

Prepared: 03/10/25 Analyzed: 03/11/25

Benzene	1.97	0.0020	mg/kg	0.100	5.17	NR	70-130			E, QM-4X
Toluene	1.95	0.0050	"	0.100	14.6	NR	70-130			E, QM-4X
Ethylbenzene	0.315	0.0050	"	0.100	8.66	NR	70-130			QM-05
m,p-Xylene	2.74	0.010	"	0.200	53.0	NR	70-130			E, QM-4X
o-Xylene	0.215	0.0050	"	0.100	4.27	NR	70-130			QM-05
1,2,4-Trimethylbenzene	0.320	0.0050	"	0.100	0.304	16.3	70-130			QM-05
1,3,5-Trimethylbenzene	0.131	0.0050	"	0.100	0.113	17.6	70-130			QM-05
Naphthalene	0.0488	0.0038	"	0.100	0.0111	37.6	70-130			QM-05
Surrogate: 1,2-Dichloroethane-d4	0.0396		"	0.0400		99.0	50-150			
Surrogate: Toluene-d8	0.122		"	0.0400		306	50-150			QM-05
Surrogate: 4-Bromofluorobenzene	0.0530		"	0.0400		132	50-150			

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

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 BIC0567 - EPA 5030 Soil MS

Matrix Spike Dup (BIC0567-MSD1)	Source: 2503131-01			Prepared: 03/10/25 Analyzed: 03/11/25							
Benzene	1.72	0.0020	mg/kg	0.100	5.17	NR	70-130	13.6	30	E, QM-4X	
Toluene	1.72	0.0050	"	0.100	14.6	NR	70-130	12.3	30	E, QM-4X	
Ethylbenzene	0.305	0.0050	"	0.100	8.66	NR	70-130	3.34	30	QM-05	
m,p-Xylene	2.56	0.010	"	0.200	53.0	NR	70-130	6.72	30	E, QM-4X	
o-Xylene	0.199	0.0050	"	0.100	4.27	NR	70-130	7.41	30	QM-05	
1,2,4-Trimethylbenzene	0.330	0.0050	"	0.100	0.304	26.0	70-130	3.01	30	QM-05	
1,3,5-Trimethylbenzene	0.133	0.0050	"	0.100	0.113	20.0	70-130	1.84	30	QM-05	
Naphthalene	0.0458	0.0038	"	0.100	0.0111	34.7	70-130	6.22	30	QM-05	
Surrogate: 1,2-Dichloroethane-d4	0.0369		"	0.0400		92.2	50-150				
Surrogate: Toluene-d8	0.121		"	0.0400		303	50-150			QM-05	
Surrogate: 4-Bromofluorobenzene	0.0531		"	0.0400		133	50-150				

Summit Scientific

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Lesair Environmental
11786 Shaffer Place Suite 210
Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

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 BIC0571 - EPA 3550A

Blank (BIC0571-BLK1)

Prepared: 03/10/25 Analyzed: 03/14/25

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.1		"	12.5		113		50-140			

LCS (BIC0571-BS1)

Prepared: 03/10/25 Analyzed: 03/14/25

C10-C28 (DRO)	557	50	mg/kg	500		111		50-140			
Surrogate: <i>o</i> -Terphenyl	13.1		"	12.5		105		50-140			

Matrix Spike (BIC0571-MS1)

Source: 2503131-01

Prepared: 03/10/25 Analyzed: 03/14/25

C10-C28 (DRO)	7580	50	mg/kg	500	4890	538		50-140			QM-05
Surrogate: <i>o</i> -Terphenyl	9.90		"	12.5		79.2		50-140			

Matrix Spike Dup (BIC0571-MSD1)

Source: 2503131-01

Prepared: 03/10/25 Analyzed: 03/14/25

C10-C28 (DRO)	11000	50	mg/kg	500	4890	NR		50-140	37.0	20	QM-05
Surrogate: <i>o</i> -Terphenyl	14.0		"	12.5		112		50-140			

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Lesair Environmental
 11786 Shaffer Place Suite 210
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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
 Project Manager: Ty Smith

Reported:
 03/17/25 09:39

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 BIC0574 - EPA 3050B

Blank (BIC0574-BLK1)

Prepared & Analyzed: 03/11/25

Boron ND 2.00 mg/L

LCS (BIC0574-BS1)

Prepared & Analyzed: 03/11/25

Boron 4.51 2.00 mg/L 5.00 90.2 80-120

Duplicate (BIC0574-DUP1)

Source: 2503130-02

Prepared & Analyzed: 03/11/25

Boron ND 2.00 mg/L ND 20

Matrix Spike (BIC0574-MS1)

Source: 2503130-02

Prepared & Analyzed: 03/11/25

Boron 4.62 2.00 mg/L 4.99 ND 92.6 75-125

Matrix Spike Dup (BIC0574-MSD1)

Source: 2503130-02

Prepared & Analyzed: 03/11/25

Boron 4.69 2.00 mg/L 4.99 ND 93.9 75-125 1.41 25

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Lesair Environmental
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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
 Project Manager: Ty Smith

Reported:
 03/17/25 09:39

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 BIC0565 - General Preparation

Blank (BIC0565-BLK1)

Prepared: 03/10/25 Analyzed: 03/12/25

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

LCS (BIC0565-BS1)

Prepared: 03/10/25 Analyzed: 03/12/25

Calcium	5.37	0.0500	mg/L wet	5.00		107	70-130			
Magnesium	5.04	0.0500	"	5.00		101	70-130			
Sodium	5.01	0.0500	"	5.00		100	70-130			

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Lesair Environmental
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Project: Williford - Rhoades Unit 5-4

Project Number: [none]
 Project Manager: Ty Smith

Reported:
 03/17/25 09:39

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 BIC0577 - General Preparation

Duplicate (BIC0577-DUP1)

Source: 2503130-02

Prepared & Analyzed: 03/11/25

% Solids	95.7		%		95.6			0.0327		20	
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 11786 Shaffer Place Suite 210
 Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
 Project Manager: Ty Smith

Reported:
 03/17/25 09:39

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

Summit Scientific

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

Batch BIC0572 - General Preparation

Blank (BIC0572-BLK1)

Prepared: 03/10/25 Analyzed: 03/12/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIC0572-BS1)

Prepared: 03/10/25 Analyzed: 03/12/25

Specific Conductance (EC) 1.39 0.0100 mmhos/cm 1.41 98.9 95-105

Duplicate (BIC0572-DUP1)

Source: 2503130-02

Prepared: 03/10/25 Analyzed: 03/12/25

Specific Conductance (EC) 0.0414 0.0100 mmhos/cm 0.0404 2.51 20

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Lesair Environmental
 11786 Shaffer Place Suite 210
 Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
 Project Manager: Ty Smith

Reported:
 03/17/25 09:39

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 BIC0568 - General Preparation

LCS (BIC0568-BS1)

Prepared: 03/10/25 Analyzed: 03/12/25

pH 9.13 pH Units 9.18 99.5 95-105

Duplicate (BIC0568-DUP1)

Source: 2503130-02

Prepared: 03/10/25 Analyzed: 03/12/25

pH 8.10 pH Units 8.14 0.504 20

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Littleton CO, 80127

Project: Williford - Rhoades Unit 5-4

Project Number: [none]
Project Manager: Ty Smith

Reported:
03/17/25 09:39

Notes and Definitions

- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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