

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 25, 2019

Jeremy Pike

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: Critter Creek 9-15H

Work Order # 1909264

Enclosed are the results of analyses for samples received by Summit Scientific on 09/20/19 16:00. 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 Ben Shrewsbury

Laboratory Manager



LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: Critter Creek 9-15H

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
09/25/19 12:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS05@4'	1909264-01	Soil	09/20/19 13:04	09/20/19 16:00

Summit Scientific

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Summit Scientific

S₂

1909264

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 (f)

Client: LT Environmental, Inc.

Project Manager: Jeremy Pike

Address: 4600 West 60th Avenue

E-Mail: jpik@ltenv.com

City/State/Zip: Arvada, Colorado 80003

Phone: 303-433-9788

Project Name: Critter Creek 9-15H

Sampler Name: Drew Bullinger

Project Number: 027318130

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions		
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	GBTEX	TPH-DRO/ORO							
1	SS05@ 4'	9/20/19	13:04	2			x			x				x	x						
2	SS05@													x	x						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
Relinquished by: Drew Bullinger		Date/Time: 9/20/19 16:00		Received by: 		Date/Time: 9-20-19 16:00		Turn Around Time (Check)						ON ICE							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/>													
Relinquished by:		Date/Time:		Received by:		Date/Time:		24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>													
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours <input type="checkbox"/>						Sample Integrity:							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Temperature Upon Receipt: 13.0													
Relinquished by:		Date/Time:		Received by:		Date/Time:		Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No													

1909264

Sample Receipt Checklist

S2 Work Order _____

Client: LT Environmental Client Project ID: CritterCreek 9-15 H

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

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

Temp (°C)	13.0
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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"/>	On Ice
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 type="checkbox"/>	<input checked="" 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.

MP
Custodian Printed Name or Initials

Muri Premer
Signature of Custodian

9/20/19
Date/Time



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Project: Critter Creek 9-15H

Project Number: 027318130
Project Manager: Jeremy Pike

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09/25/19 12:14

SS05@4'
1909264-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/20/19 13:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1909293	09/23/19	09/24/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/20/19 13:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		91.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/20/19 13:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1909292	09/23/19	09/24/19	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/20/19 13:04**

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

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Project: Critter Creek 9-15H

Project Number: 027318130
Project Manager: Jeremy Pike

Reported:
09/25/19 12:14

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 1909293 - EPA 5030 Soil MS

Blank (1909293-BLK1)

Prepared: 09/23/19 Analyzed: 09/24/19

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	0.0469		"	0.0400		117	23-173			
Surrogate: Toluene-d8	0.0373		"	0.0400		93.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0432		"	0.0400		108	21-167			

LCS (1909293-BS1)

Prepared: 09/23/19 Analyzed: 09/24/19

Benzene	0.137	0.0020	mg/kg	0.150		91.3	70-130			
Toluene	0.124	0.0050	"	0.150		82.5	70-130			
Ethylbenzene	0.131	0.0050	"	0.150		87.4	70-130			
m,p-Xylene	0.261	0.010	"	0.300		87.0	70-130			
o-Xylene	0.130	0.0050	"	0.150		86.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0386		"	0.0400		96.6	23-173			
Surrogate: Toluene-d8	0.0375		"	0.0400		93.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0386		"	0.0400		96.4	21-167			

Matrix Spike (1909293-MS1)

Source: 1909258-01

Prepared: 09/23/19 Analyzed: 09/24/19

Benzene	0.143	0.0020	mg/kg	0.150	ND	95.6	70-130			
Toluene	0.142	0.0050	"	0.150	ND	94.5	70-130			
Ethylbenzene	0.123	0.0050	"	0.150	ND	82.2	70-130			
m,p-Xylene	0.246	0.010	"	0.300	ND	81.9	70-130			
o-Xylene	0.122	0.0050	"	0.150	ND	81.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.8	23-173			
Surrogate: Toluene-d8	0.0424		"	0.0400		106	20-170			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		101	21-167			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch 1909293 - EPA 5030 Soil MS

Matrix Spike Dup (1909293-MSD1)	Source: 1909258-01			Prepared: 09/23/19 Analyzed: 09/24/19					
Benzene	0.142	0.0020	mg/kg	0.150	ND	94.3	70-130	1.31	30
Toluene	0.110	0.0050	"	0.150	ND	73.2	70-130	25.4	30
Ethylbenzene	0.117	0.0050	"	0.150	ND	77.9	70-130	5.32	30
m,p-Xylene	0.227	0.010	"	0.300	ND	75.7	70-130	7.85	30
o-Xylene	0.115	0.0050	"	0.150	ND	76.7	70-130	5.90	30
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	23-173		
Surrogate: Toluene-d8	0.0343		"	0.0400		85.6	20-170		
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		93.9	21-167		

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Project Number: 027318130
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Reported:
09/25/19 12:14

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1909292 - EPA 3550A

Blank (1909292-BLK1)

Prepared & Analyzed: 09/23/19

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

LCS (1909292-BS1)

Prepared & Analyzed: 09/23/19

C10-C28 (DRO)	525	50	mg/kg	500	105	81.4-129				
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Matrix Spike (1909292-MS1)

Source: 1909258-01

Prepared & Analyzed: 09/23/19

C10-C28 (DRO)	493	50	mg/kg	500	91.4	80.4	77.8-133			
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Matrix Spike Dup (1909292-MSD1)

Source: 1909258-01

Prepared & Analyzed: 09/23/19

C10-C28 (DRO)	516	50	mg/kg	500	91.4	84.8	77.8-133	4.39	8.48	
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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